

CHEETAL

A Journal of
Wild Life Preservation Society of India



VOL. 7

OCTOBER, 1964

NO. 1

Wild Life Preservation Society of India

I. The aims and objects of the Society are as follows :

- (a) To promote interest in and impart knowledge regarding the preservation and conservatoin of all forms of wild life, particularly among the youth of the country.
- (b) To co-operate with the Govts. of India and States and with other Societies and Institutions having similar aims and objects in working for the interests of wild life.
- (c) To assist in enforcing and actively supporting the Forest Acts, Wild Birds and Animals Protection Acts and Rules etc. of States and the Indian Arms Act and Rules in so far as they pertain to wild life and to bring to the notice of the authorities any infringement of the same and to assist in the detection and prosecution of offenders in respect of such laws.
- (d) To advise and help the Govt. and wild life administrators in the formation, maintenance and protection of Sanctuaries and National Parks, the preservation of wild life in general and rare species of India in particular and in the introduction of exotic species into the country, the rehabilitation of rare species etc. and in the revision on rational lines of the shooting and fishing rules, so as to conserve and increase wild life stocks.
- (e) To raise funds for the carrying out of the above aims and objects and to found and maintain museums, reading rooms and libraries of natural history in order to disseminate knowledge regarding wild life.
- (f) To promote sportsmanship in shikar and to recognise well regulated shooting and fishing, as a means of preserving wild life and fish so that through wise use the surplus may provide a recreational asset to the nation.
- (g) To carry out publicity and propaganda for the preservation of wild life in India by means of monographs, journals, bulletins, films, film strips and other feasible methods.
- (h) To assist members of the Society in obtaining shooting and fishing facilities and facilities for viewing and photographing wild life in India.
- (i) To conduct research into the problem of Wild Life management in India, and in pursuance of this, to initiate, encourage and, where possible, assist in projects for the study of threatened species and related subjects and to provide reference and research facilities for such work.
- (j) To carry on such other activities which will serve the above objectives.

What membership of Wild Life Preservation Society of India will entitle you to ?

1. You will become an active member of the growing number of Wild Life enthusiasts, who enjoy working for and spreading the knowledge of how to conserve India's heritage of Wild Life for posterity.
2. You will be entitled to the full use of the Library of the Wild Life Preservation Society and of its reading room.
3. You will receive a membership certificate.
4. You will receive a personal Identification and membership card.
5. You will be entitled to buy all publications of the Society at a concession rate.
6. You will be entitled to buy at concession rates the Societys' Greeting Cards, Calenders, Tie and the Balance of Nature Game (Specially published in colour for its educative and recreational value).
7. You will be supplied "Cheetal", the Half Yearly Journal of the Society free.

II. The Society has, upto date:—(31-3-64).

Patrons	...	18	Educational members	...	20
Life members	...	70	Professional members	...	25
Ordinary members	...	145	Honorary members	...	8
Institutional members	...	5	Family members	...	1
Affiliate members	...	5	Student members	...	81

Total Membership is 378 (Excluding Student Members)

III. Executive Committee

President:—His Highness Maharaja Pratap Singh Malvendra of Nabha—Regional Secretary for North India, Indian Board for Wild Life.

Senior Executive Vice-President:—Shri S. S. Negi (Retd. Conservator of Forests)

Vice-Presidents:—1. Shri P. D. Stracey—Director of Forests, Nagaland.

2. Dr. Bains Prashad.

3. Sardar Ranbir Singh.

4. His Highness the Maharaja of Kotah.

5. Shri R. C. Kaushik—Director of Forest Education. F.R.I. & Colleges, Dehra Dun.

Hony Secretary & Treasurer:—Dr. R. N. Misra.

Asstt. Hony. Secretary:—Dr. S. K. Sangal.

Wild Life Preservation Society of India

VOL. VII }

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THE

Welcome Speech by His Highness the Maharaja Malvendra Bahadur of Nabha, President, Wild Life Preservation Society of India, Dehra Dun, at its 6th Annual General Meeting, held on the 26th September, 1964

GUESTS & MEMBERS

It is my proud privilege to welcome you all to this sixth Annual General Meeting of our Society.

The accounts and the auditors' report has been with you for some time now, and may I take it as read. You will be glad to know that the deficit has been almost wiped off and stands at a few hundred rupees only as compared to about 5/6 thousand rupees last year and our reserve fund has increased by five thousand rupees in the current year.

Since our last Annual General Meeting a lot has happened and I should like to tell you something about it. I am pleased to inform you that we have now 8 New Patrons, two out of them being from England. They are The Marquess of Willingdon, President, The Fauna Preservation Society, England, and Colonel G.S. Courtney who is very keen in wild life preservation and it was with his help that I was able to get the Marquess of Willingdon to agree to be a Patron of our Society. 15 New Life Members, 33 New Ordinary Members, 9 New Educational Members, 10 New Professional Members have also been enrolled.

It was decided at an Executive Committee Meeting that we should have a Library. With this object in view, I have great pleasure in presenting to the Society a few books on wild life that will make the nucleus of our Society's library. Others are on order and shall be sent to the Society's library as soon as they are procured. Some are out of print and an endeavour is being made to get them and when we succeed they shall also be sent to the library. Those who wish to contribute books to this library, their contributions will be most welcome.

Balance of Nature:—At long last, the game known as "Balance of Nature" is ready and it can now be had from our Honorary Secretary on payment. This game I hope will go a long way to educate all concerned as to how important it is for us to save the fast diminishing wild life of our country otherwise there shall be nothing to preserve.

Elephant Shooting:—I have learnt with great despair of the orders in Uttar Pradesh regarding shooting down of elephants which has resulted in indiscriminate shooting of the animal. If there were too many of them and they were damaging crops and fauna, then it would have been humaner to have a "Kheda" for them rather than have them killed

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ruthlessly by Shikaris. In some cases all kinds of bores of weapons have been brought into play and in quite a few cases it has resulted in injuring the animal and leaving him wounded. I am sure a true and great sportsman would not do so. What can be more cruel than to see all this happen in front of our eyes and we remaining dumb spectators without being able to stop this cruelty. There is an obvious danger of leaving the animal wounded inasmuch as such practice will give rise to Rogue Elephants wandering about in jungles.

National Rifle Association of India:—At one time it was decided that the Society should become a member of the National Rifle Association of India but at that time our financial position did not permit that. Even now the position has not very much improved. But we have decided that now those who want to become members can do so individually and get the benefit of the Association.

Grant-in-aid :—There has been a lot of correspondence with the Government of India regarding the grant that we want for the Society and I understand that our request is being considered favourably.

Fishing:—On the recommendation of the knowledgeable members of the Society interested in fishing it was decided that Jamuna-Tons Junction waters should not be taken on lease. The Secretary of the Fishing Committee is now busy organising a Fishing Association within the Society which could be nearly self-supporting. We hope he will succeed in his efforts.

Poachers :—It was decided at the Uttar Pradesh Wild Life Board Meeting at Lucknow on 4th and 5th July, 1964 which I attended that the Wild Life Wardens should be given magisterial powers so that when a poacher is caught he can be given the punishment on the spot. For what happens now is that when a poacher is caught it takes the Forest Department a lot of time to try him, and with the law at present, he invariably gets away with a fine, and is ready to do it again with the hope that he shall not be caught this time and shall be more careful. I am sure that we can eliminate a lot of poaching if Wild Life Wardens are given magisterial powers.

Poaching and Netting of Game Birds and Game Animals for Meat:—Quite a large number of Game Birds and Game Animals are being destroyed by persons who indulge in poaching and netting. Some measures should be adopted, and if necessary, the persons who are found committing these wrongs, should be punished and for that purpose necessary Laws and Regulations should be brought in. In this task, we should seek the help and cooperation of Civil, Military and Police officers of the areas concerned. It is a pity that meat of Game Birds and Game Animals is available to certain people as an item of their daily menu. It is high time that we wage a war against poachers and netters of these birds and animals. The birds and animals should not be allowed to be killed for commercial

profits. It is often seen that Venison and Partridges are served on dinner tables just as mutton and chicken which can be easily bought from the market. It is obvious that such game is not usually shot by the person serving it but it is generally procured and served. The spirit in such matters is that when it can be had at your house-door by home delivery, why should you go out in the forest and incur the botheration of shooting. Nowhere in the world you get game birds or game meat like this. I suggest that poachers' guns and netters' nets be confiscated and they be black listed for atleast five years and their names be circulated to the different States in India so that they should not be able to get Shooting Licence in any other State. I regret to say that unless the Authorities in all the States act strictly and firmly against such people, there shall be left nothing to preserve in the Wild Life. Even the poachers and netters will have nothing to go after.

Wet Skins:—Another way of catching poachers is to see so many wet skins of animals in the market. The way that I feel and all of you assembled here would agree with me, that one way to catch the poacher and the person who carries the wet skins, is that Taxidermists should be licensed. In that way one can check and see who have been the culprits and severe punishments should be given to them to set an example for other miscreants. You will all appreciate that poaching is such a heinous crime that no leniency should be shown to those who are found guilty of such breaches.

Bombing of Rivers:—The bombing of rivers can only be stopped if the Wild Life Wardens of the areas tour their respective areas and see that it is not done and give due punishment to those who are found guilty. We understand that the U.P. Government is proposing to promulgate some law for the waters that run through non-forest areas and it will come under the management of the Forest Department so that the offender, if any, can be caught and given the punishment he deserves. This may be tried and to see what success we have in having more fish in our rivers.

U.P. Wild Life Board Meeting, Lucknow:—I have recently attended the first meeting of the Uttar Pradesh Wild Life Board at Lucknow. At this meeting I pressed for this Society's representation on the U.P. Wild Life Board to which the Minister was very favourable and now I am pleased to inform you that our request has been accepted.

Standing Committee Meeting of the Indian Board for Wild Life, Delhi:—I have also attended the Standing Committee Meeting of the Indian Board for Wild Life in Delhi. There I met the Deputy Minister for Agriculture and gave him a letter in which the Society has asked for representation on the Board to which a reply has been received that because of the presence of the President of the Society on the Wild Life Board, further separate representation was not necessary. We are going to press our request further with the Government.

Research Projects:—Some members are carrying on research projects on a few subjects, namely, Mr. Negi on Elephant, Mr. Dang on Himalayan Animals and Dr. M.B. Lal on Mahaseer Fish.

The Chief Conservator of Forests, U.P. at the instance of Shri S.S. Negi, has asked all the Forest Officers in the State to become members of the Society and subscribe to our journal "Cheetal". Such a thing has also been done by the Chief Conservator of Bihar at the instance of Mr. P.D. Stracey.

The Forest Minister of Maharashtra has been approached by one of our esteemed members of Bombay to buy the "Cheetal" for all the Forest Officers in the State. We expect a favourable reply.

New Branch:—I am also glad to inform you that a new branch of the Society has been opened in Bihar.

Corbett Prize:—The Essay Competition on wild life based on the Corbett Prize was organised this year and the prize to the author of the best essay has been awarded.

As many as six members and office bearers have delivered more than 11 lectures on various aspects of wild life preservation at the various institutions, schools, clubs and societies during the year.

The Society also organised the Wild Life Week from 2nd to 7th November, 1963, in collaboration with the U.P. Forest Department.

Lastly, I want to thank the office bearers of the Society for their co-operation and it is due to them that we have achieved the success that we have. I should like to make special reference to Dr. R. N. Misra, our Honorary Secretary, for the way he has carried the office with untiring energy along with his other work in the college, otherwise it would not have been so easy in running the Society for its day to day work.

Thank you all once again.

I am obliged to you for electing me again as your President and let me assure you that I always have the affairs of the Society very near to my heart and I am always thinking that the Society must move from strength to strength. I must, however, say that it can be achieved only if I have your usual co-operation. We need more members and let us hope that when we meet again, we can tell you that we have achieved this object. Let each member get at least one member for the Society.

Before I conclude, I should like to thank Mr. S.S. Negi and Dr. R.N. Misra for their kind words about me in their speeches. We could not have achieved all that we have done in the year if I did not have the active co-operation of the members of the executive commi-

tee. I am glad to see that there are so many student members at this meeting and we hope to see more at the next meeting.

Thank you all for coming and attending this meeting and making it a success.

Ourselves

Honorary work of any sort in India is a rarity; amateur enthusiasm is woefully lacking in our country, and when such does offer, little is done to harness and encourage it. In fact there would seem to be a distinct antipathy towards such voluntary dedication that exists, as evidenced by the disdainful and downright inhibitory role played by official agencies in the matter of wild life conservation.

This contemptuous dislike of 'meddling' amateurs would be partially comprehensible on the part of an efficient administration that knew its job and had mastered its metier; coming as it does from our own, which, for all its relative merits as an Asian administration, is riven with ignorance, complacency, indolence, vagueness, confusion and worse, it is unforgiveable. Examples of these defects are sprinkled throughout the pages of 'Cheetal' and we continue to hope that co-operation will be forthcoming in future.

Still we can't help wondering when India will be able to shake off the hold of the corny images of leadership which have been guiding our destinies since 1947? When will we have men doing jobs they like doing and know how to do? Even while denigrating the British Ideal of the enthusiastic amateur who devotes disinterested labour to some worthy cause, we seem to have accepted the worst aspect of that Ideal: ignorant amateurs charged with specialised jobs they neither know nor wish to learn. We can only hope that all over India the tide will turn and 'experts' in the art and science of Conservation, amateur or official, will be consulted in the process of discussion and formulation of policy.

Our catalogue of woes this time is endless. While our much-deferred, promised grant from government languishes somewhere in the catacombs of the Central Secretariat, and we manage to improvise a way out of each annual financial strait and somehow muddle

along with our ambitious projects of research and publicity, someone or the other keeps jarring our illusions. We were quite convinced that it was final that after much delay the wild life conservation movement in the country had come to be personified and embodied in our Society. Two of our most active and knowledgeable members had published the two best books on their subjects, and we were collecting information from the field and supplying it to enquirers all over the world. And yet, we meet people in places as well-informed as New Delhi and Calcutta who have never heard of us. These are people whom we would like to have as members, for all their urban sophistication, for they can help us greatly near the seats of decision.

To remedy this shortcoming, the Society is a planning two-pronged drive.

The first part is to make a modest effort during this year's Wild Life Week celebrations to bring ourselves to the attention of the public through leading newspapers. We can do no more this year, since time is already near, but in 1965, it is proposed to hold a Wild Life Society Week to coincide with the Administration's Wild Life Week. A magnificent photographic exhibit and film-projection programme, publicity handouts and press-space, are part of this project, in which we request the active cooperation of our members. We intend to have giant blows-ups made of photographs taken by our members, and to have lectures and film-shows in New Delhi. For this we need original photographs and film. Members who are in possession of such, should write to us NOW, so that the blows-ups can be made in time. We cannot pay for these, but all expenses will be borne by us, and grateful thanks will belong to the contributors.

The second part of our programme deals with educational institutions in this country. There are no less than two hundred and twenty English-medium schools in India, with another hundred soon to be established by the Government. Our Editor will be visiting these personally in an effort to boost the circulation of the 'Cheetal'. A similar effort is being made by the Honorary Secretary's office by Post the next and logical step will be a similar approach to other schools. The Army and the civilian services are the other target in this drive to increase the circulation of the 'Cheetal' to five thousand copies, which alone would permit us to make radical and needed improvement in format and matter.

We mention these projected moves to invite ideas and assistance from our members. If every member could find two other persons in his neighbourhood who were interested in our activities sufficiently to become members, there would be no need for much costly publicity. We will look forward to receiving your views.

Editorial Notes

Elephants Again

Following upon the ravages of wild elephants in the terai of U.P., certain District authorities were permitted to invite sportsmen to shoot down and destroy a certain number of elephants each. So far so good, but some of the permits seem to have been given to sportsmen who did not take as much trouble as they ought in following up the elephants wounded by them, with the result that at least two human beings were reported killed by wounded elephants.

Elsewhere, we publish the correct manner of shooting an elephant, from the pen of that expert on elephants, P.D. (Elephant Gold) Stracey: he gives, too, an excellent account of the construction of the elephant's cranium to assist in clean shooting. Not all sportsmen in India, unfortunately, have Mr. Stracey's knowledge, skill, enthusiasm or genuine expertise. It was these 'kutcha' sportsmen who led to some ill-informed press-controversy, in which all sorts of exaggerated accusations were levelled against *all* Indian sportsmen, and it was even suggested that White Hunters be imported from Africa for the 'culling' of elephants.

It is just this kind of blanket accusation which we find unjust. We are publishing below excerpts from Mr. M. Krishnan's views on the subject as expressed in *The Statesman*. As usual with this veteran and observant Naturalist's comments, they are worthy of serious consideration, though we would like to add the opinion we hold that elephant-hunters are not born, but made. Experienced sportsmen who can be relied upon to shoot straight with rifle and word are a great asset to conservation efforts, if they take an intelligent interest in their sport. Before a sportsman can shoot his third and fourth elephant he must first have shot his first and second. Truisms, no doubt, but truisms too often ignored !

Colonel Powell, author of that interesting book, *Call of The Tiger*, also wrote to *The Statesman* to say that the rampaging elephants in the Doon were the result of the boundary wall(s) of the Anti-biotics plant which barred the normal route across the Ganges used for decades by the herds on either side. Much truth in all this; in any case, we hate boundary walls and anti-biotics plants as much as anyone. And yet, it would be reactionary to condemn such works. Rather, when we probe deeper we find that reasons other than the boundary wall or 'kutcha' sportsmen were responsible for the rampaging herds. The number has decidedly increased in accordance with the principles we discussed in the last issue, and a certain amount of culling has become necessary. There need be nothing essentially evil about the necessity of culling their numbers. It is an integral part of conservation. Indeed,

the greatest argument, in our view, in favour of conservation, is the immense moral and aesthetic value of sport and recreation provided by wild life.

What is needed is intelligent supervision of amateur 'cullers' by the pertinent authorities, which again argues the old, old platitude of the need for intelligent and enthusiastic 'pertinent authorities', unfortunately rare in India.

Rampaging Elephants

Wild elephants on the rampage in the Doon Valley, terrorizing villages over a wide tract, have been much in the news recently. I do not know the area or its elephants, but probably they were moved to sudden aggression and conquest by the same causes that actuate the great beasts in South India, where they are unquestionably the most dangerous animals in the jungles.

* * * * *

Many jungleside villages in the South face the threat of crop-raiding elephants, and people have to be constantly on their guard against them. In a forested tract of the Nilgiris that I know, dozens of men have had narrow escapes from wild elephants within the past year, and at least half-a-dozen have been killed; seeking to photograph elephants here, I have been charged or chased on several occasions, and though I had taken care to plan my retreat, I did get a bad fright more than once. I also got a good picture of a lone bull in musth that charged me from fifty yards away and, finding a deep nullah between us, threw up his curled trunk and trumpeted his rage shrilly at me.

Now, all this is not as it should be. Wild elephants are a menace to the crops and plantations, and even the people, of settlements outside the jungles. Occasionally a herd, or a combative lone bull, is a threat even to motor-cars and lorries on the forest roads, and people working on our hydel projects sometimes find elephants more than a mere nuisance. I remember meeting one of these project officers shortly after he had escaped from a herd of wild elephants; his jeep had been forced to make a tedious detour, and to move in undignified haste to get away from that boisterous herd, and the officer was feeling much aggrieved. I remarked that, perhaps, he should have been more careful, driving through elephant jungles in the evening, and his reply was memorable. "Do you realize, Sir", he thundered, "that these damned elephants of yours are holding up the Five-Year Plan?" It is this type of officious mentality that our wild animals have to cope with.

I am willing to accept the many tons of unpredictable responsibility that this officer glibly transferred to me, and argue the case for the elephant. In this, let us live up to our exalted

evolutionary status, high above the pachyderm, and face the issues with intelligence, and a measure of integrity. What, in essence, is the case against wild elephants? It is that they invade our holdings and lay waste to them, and are a threat to humanity near the jungles. And you know as well as I do, and, perhaps, even the elephants do at their dim brutish level of understanding that this case is substantially false. It is we that have invaded their immemorial homes and laid waste to their feeding grounds, and harrassed and slain them.

The elephant is a long-lived animal. And our plans and projects, to try and meet the ever-growing demands of our ever-growing humanity, are recent—most of them have come up within the past 20 years. And many of them are sited in elephant jungles, at least in South India.

A vast network of roads cuts up the jungles, wide tracts of forest are cleared and laid low, or drowned, and a number of amateur "sportsmen" gleefully shoot the invaded, panic-stricken animals now exposed to the jeep and the van; a while later, professional poachers move in to snare, net and shoot. By the time the project is completed, several large human settlements are established in the heart of what was, within their own recollection, the home of the wild elephants, and on the borders of these, plantations and crops are raised.

* * * *

Wild animals have strong territorial feelings; they cling stubbornly to the place they grew in. Trying to rescue the wild life from the water flooding their valley under a man-made scheme, people have seen the creatures they drove out return to the valley to be drowned. Such powerful territorial feelings, of course, are not something peculiar to animals. We call it patriotism when it moves us, and glorify it with evocative song, with anthem and with flag. But in wild creatures this feeling is too narrow and earth-bound to appeal to us—isn't it stupid the way they keep trespassing into the now-converted tracts they knew, when they have so many other places to go to!

And where are these other places? I can tell you. They are the patches of thin jungle in between settlements, roads, and power lines where even if they are not actively hunted by men (as they are) the animals are constantly disturbed; or they are sanctuaries, no less cut up by roads and depots and colonies, where forestry operations, timber lorries, and bamboo and M.F.P. contractors give the wild life no peace. Birds and small beasts are often able to live in such hemmed-in areas, but the larger, wide-ranging animals, such as gaur and elephants, just cannot—as the guns waiting for them immediately outside the sanctuary know well. When they cannot find sufficient food and cover in these restricted areas, and are frequently disturbed, they move further afield, only to be bewildered by settlements and people everywhere.

I realize that all this is rather pointless. As one hopelessly involved in the future of India's wild animals, I do realize that any criticism of the exploitation of forests in our Plan-Project-ridden country can only provoke hostility and reprisals. That does not matter to me, personally, but nothing is gained by pursuing further the investigation of cause and effect that I started on. Instead, let me make a constructive suggestion.

With negligible exceptions, all the proclaimed "rogues" that go vindictively for the men that cross their paths are elephants with festering gunshot wounds, maybe acquired while raiding a plantation, maybe far from any plantation. Elephants do not recover quickly from deep flesh wounds, as some other animals do; they carry the wounds for years, finding them more and more painful, and all the time they do seem to remember how they came by their injuries, and develop a great, lasting hatred of humanity.

On the other hand, the mass aggressiveness of herds is often due to uncertainty, nerves, and temporary upsets, and subsides as a rule. These herds can be scared away by noisy rockets and fireworks, and this should be tried first. If that fails, and they must be shot, obviously it is unwise to wound, and convert into implacable enemies of man, elephants passing through a frenzy brought on by lack of food, or insecurity, or some transient cause.

Shooting an elephant is a job for an expert; the experienced elephant hunter will approach very close to his victim (it is no more difficult to approach a proclaimed rogue than a peaceable tusker) and drop it dead with one carefully-placed shot, but for this he needs to be familiar with the anatomy of the elephantine cranium, know how to get to within twenty or thirty paces of an elephant in the jungle, and, most important, have experience of this rather specialist form of shooting. To invite all-comers to help with the massacre of elephants in some forested area is to invite dangerous trouble, especially if the trophy-seeking visitor from overseas is also encouraged to have a crack at the herd. That can only result in the elephants being put to much cruel suffering, and, perhaps, also in a measure of avoidable human tragedy.

M. Krishnan.

Reports from National Parks and Sanctuaries

Kanha National Park: The situation in this Madhya Pradesh wilderness is not encouraging; we have reports of a decline in even the most characteristic and dominant species of this park, the swamp deer, who are said to have been almost decimated to nearabout one sixth of their original figure of six hundred in the past few years. We still do not know the cause of this decline, but we are trying to get a fuller report; poaching and disease are said to be equally culpable.

This matter of disease highlights once again the need for capable and expert wild life managers in the country. Why can't the state governments send their wild life managers to zoological parks in India, if not elsewhere, for training periods; such rotation would immensely assist in the evolution of a group of wild life experts in places where they belong: forest and wild life departments. Amateurs, however knowledgeable they might be, or even 'expert' at wild life they might become, can never command the power of decision and execution. That must remain to government departments. Our job is to point out needs; government alone can fulfill them.

Rajaji Sanctuary: It is not enough to start a Sanctuary. Very easy, indeed, to take a map, draw a red line all over, and say *voila!* That is mere paper-conservation; what is needed is the creation of conditions whereby not only do we start sanctuaries, but also give them *raison d'être*. People must go and see animals there. There must be animals there, which grow in numbers through real protection afforded them.

Who ever goes to see wild life at the Rajaji Sanctuary? It is a wonderful area of Shiwalik mixed forest, sal and bamboo and semul down below, where every species of this area is represented. But the few tiger and numerous panthers are too shy of the main roads and there are hardly any side roads. There is no well-maintained system of 'machans', and no 'kills' are offered to the predators.

Being athwart the motor road from Delhi to Mussoorie and the Doon, this Sanctuary can well begin to rival Corbett Park in attracting tourists, but almost nothing is being done to attract tourists.

(We are making a move with the state government for taking over the management of this Sanctuary. Unfortunately there is no provision in the U.P. for Honorary Forest or Game Wardens, so that we can have no official standing to do all this. However, it is possible that our efforts may jog the Administration into doing something. Right now, we feel compelled to state, the Administration is following a 'dog in the manger' policy of masterful inaction, which prevents us from doing anything but write endless letters and aides memoires, which bring no reaction from anyone at all.--Editor.)

Editor's Note:—We would welcome information from readers on the following:

Dachigam

Sirsa

Jaldapara

Gazelle in Rajasthan.

Pandit Govind Ballabh Pant Pashu Vihar

We publish elsewhere the photograph of a red bear pelt which we took ourselves at a taxidermist's workshop. The venerable man confided to us that the red bear in question had been shot by an official in the Bandarpunch basin; Tons or Jemdar, he could not say.

Needless to say, we were aghast, and for a variety of reasons, as we have very pleasant memories of hunting the alps and cliffs of the Tons for 'thar' and 'burrhel' before it was declared a sanctuary; much against our wishes and opinions, for we felt it would be merely a paper sanctuary, like so many others, whereas some sportsmen visiting it regularly and abiding by the rules would perform an automatic Game Warden function.

We decided, therefore, to confirm whether the red bear skin had, indeed, been obtained by an official and in the sanctuary. We wrote to our friend, the shikari, below the Tons-Jemdar confluence, and now have his assurance that the red bear was shot by someone who ought to have known better. Such hateful cynicism on the part of authority who should know better makes us justly indignant.

Death of a Rhino

Normally we are not prone to hysterical excitement like Kensington Landladies about stray instances of a cruelty to cats or minor injustices. Organised cruelty and grave and sustained injustice are far too rampant in the world and more so in India, for lesser evils to warrant such excitement. But in the case of the Rhino that strayed from Kaziranga and eventually died we see the workings of several threads of the kind of web of deceit and inefficiency that we often criticize and it merits our attention. We publish below extracts from Mr. E.P. Gee's letter to The Statesman to give the background to the affair.

Sir,—I feel compelled to point out some popular misconceptions concerning the rhino which died recently in Assam after several months of wandering. Most of these are based on sentimentality. Your Special Correspondent in The Statesman of June 16-17 is mistaken when he thinks that this rhino was wandering "in search of a sanctuary". Most probably it was doing exactly the opposite and was avoiding sanctuaries and the company of others of its own kind, because it is well known that when a bull rhino becomes aged or enfeebled by injuries it gets attacked and badly gashed (not by the horn but by the tushes in the lower jaw) by younger and more vigorous rhinos. This sort of thing often happens among wild animals and birds. That is why so many old (nearly always bull) rhinos leave their sanctuary and spend their last years on the fringe, often near human habitation.

After hearing and reading a lot about this case, I think it probable that this rhino was not "the young age of 30" but much older. Incidentally rhinos do not live in a "herd", but remain solitary, or else in twos or at the most in threes.

Mr. C. Jung (June 21-22) suggests that this wandering rhino should have been "trapped", and the writer of Calcutta Notebook in your issue of June 22-23 also suggests that the animal should have been "saved" or "rescued". Well, when an aged or enfeebled rhino stays on the fringe of its sanctuary it can fortunately survive for a number of years comparatively unmolested—as did the "boorra goonda" and the "kan katta" at Kaziranga. But when it takes to wandering, as some of them do, there is nothing very much that can be done. It is no use trying to trap and transport an old or injured or enfeebled animal to a zoo. In any case the pit method of capturing cannot be used, as there are no well defined tracks of a wandering rhino like those in a sanctuary.

The ideal thing would be to let it roam in peace and die a natural death, but unfortunately the density of human population and widespread cultivation get the rhino into trouble. If it is known that a wandering rhino is in pain and cannot live long, the most humane thing to do would be to shoot it and put it out of its misery. So it is not fair to blame the Assam Forest Department for not catching or rescuing it. Actually the staff of this Department took a lot of trouble in trying to project it during its wandering and in trying (mistakenly) to drive it into the Manas Sanctuary (where it would have got into trouble from other rhinos).

I have seen the report of the post-mortem examination, and it appears that in one of the two gunshot wounds the bullet entered the cranium and might have affected the brain. This might have been the cause of its having wandered in such an erratic manner, crossing the Brahmaputra, no less than five times—presuming that it was the same rhino whose whereabouts were picked up every now and then. Unfortunately the report does not give the approximate age of the rhino, nor does it state when the gunshot wounds were probably inflicted. Was it wounded before it started wandering, or after? If the animal was shot by poachers in the Orang Reserve, then better protection by the Forest Department is needed there, in which an enlightened public opinion can assist.—Yours, etc. E.P. Gee.

Upper Shillong, June 26.

[*Boorra Goonda (the Old Rascal) was probably the best known rhino. He rarely failed to make an appearance before visitors to the Kaziranga Sanctuary. He lived on the fringe of that sanctuary for about 12 years between 1939 and 1951. Kan katta (the earless) also lived on the outskirts of that sanctuary for two or three years till his death in 1953—Ed. S.]

It is putting gloss over inefficiency to not condemn the Forest Department for not having for ready use even one 'Cap-Chur' gun (tranquilliser gun firing drugged-syringe bullets) which alone might have made the Rhino's rescue a feasible and manageable project. We can just imagine what an English or really enterprising young Indian DFO would have done!

Corbett Prize Project 1964

The response to our invitations to fifty selected schools this year to participate in the project was very poor, indeed. We received a disappointingly small number of entries, but several of them were of a high standard.

The First Prize, a copy of Mr. E.P. Gee's book, *The Wild Life of India*, goes to D. Amar Singh, Vindhya House, Lawrence School, Lovedale, Nilgiris. Our congratulations to him on his work, which appears in extract elsewhere.

The next Corbett Prize Project will cover a different set of educational institutions and will be announced soon.

Place Names

It has been a convention with the Survey of India that, in so far as possible the naming of the mountains of the Himalaya, and other places has been in accordance with local tradition.

A similar convention seems to us to be called for in the matter of naming National Parks and Sanctuaries. We are as patriotic as anyone and thought very highly of the qualities of mind and heart of the late Pandit Pant, but that seems to us inadequate as justification for naming the Tons, or Bandarpunch or Harki Dun areas after him on their being formed into a Sanctuary. Would it not be better to retain the musical Tons or the inspiring Harki Dun, than to associate, presumably forever, enchanting mountain-country with political names which cannot but recall a whole ethos of political attitudes, however praiseworthy they may have been to one generation. This same flaw seems to us to mar the veneration in which Mr. Nehru is held in the country. If names of men and personalities must be enshrined by being given to National Parks it is certainly preferable to honour men who have worked for the conservationist Ideal, like Jim Corbett, than those connected with an entirely different and often unscrupulous sphere of human activity.

The Shedding of Antlers by Cheetal Deer*

BY

GEORGE B. SCHÄLLER AND RAMESH CHANDRA DE

The time of the year at which the cheetal or spotted deer (*Axis axis*) sheds its antlers has frequently been debated in hunting books, scientific journals, and other publications. Some authors maintained that antlers are shed throughout the year, more or less regularly at all seasons, whereas others agreed with Dunbar Brander who wrote in *Wild Animals in Central India* that "the great majority of animals drop their horns in August, begin to grow them toward the end of the rains, and are in velvet up to December...." However, these opinions lack the support of detailed data. As part of a year-long study of the ecology and behaviour of the big game species in Kanha National Park, Madhya Pradesh, we have been recording the estimated length of the Cheetal antler along the outside curve, and the presence or absence of velvet. Although our results are based on only 6 months of study, from January through June, 1964, we hope that this preliminary note may stimulate others to collect similar precise data in other areas, for it is possible that considerable differences in the growth and shedding of antlers exist in various parts of the country.

Kanha National Park, 122 square miles in size, lies at an altitude of from 1,750 to 2,900 feet in the Central Indian highlands at 22°15' N latitude and 80°35' E longitude. The main park area consists of a broad valley surrounded by hills on three sides. Sal (*Shorea robusta*) forest, broken by grass meadows, covers about 40 per cent of the low-lying portions of the park; the remaining 60 per cent consists mostly of mixed forest in the hills. The cheetal confine themselves primarily to the sal forest, particularly around Kanha village, where roughly 500 to 600 animals frequent about 10 square miles of terrain. This concentrated population has been our main source of information.

Cheetal stags can conveniently be divided into adults and yearlings. Adults are two or more years old, and their antlers when fully grown are usually over 10 inches long, possess a brow tine, and often have a subsidiary tine off the main beam. Yearlings are one to two years of age and their antlers consist of an un-branched spike usually less than seven inches long.

*This research is being carried out under the auspices of the Johns Hopkins University Centre for Medical Research and Training, Baltimore, Maryland, U.S.A., with the cooperation of the University of Calcutta. The National Institute of Health, United States Government, provides financial support under grant GM 11326-04. We would like to thank the Forest Department, Madhya Pradesh, for its help and cooperation in this project.

Adult males—Sixty eight per cent of all adult males tallied in January had antlers in varying stages of development covered with velvet, suggesting that the majority of animals had lost their antlers at some time between August and December. Of the 32 per cent in hard antler, about half had shed the velvet recently and the other half had not yet lost the antlers of the previous year. Nearly all of the stags which retained the old antlers had shed them by mid-February. Between March and the end of June, a period of 4 months, only two stags shed their antlers to our knowledge. One did so probably in late April, and the other in mid-June. Thus, the per cent of males with antlers in velvet decreased steadily during February, March and April, until in May only 4 per cent of the stags were still in velvet.

Table I

Per cent of cheatal stags with antlers in velvet

Month	Adult male		Yearling male	
	Total No. classified	Per cent with antlers in velvet	Total No. classified	Per cent in velvet (knob and velvet spike combined)
January 1964	358	68	—	—
February	648	54	—	—
March	500	37	204	87
April	363	14	196	83
May	427	4	238	72
June	565	2	280	52

The total number of males classified each month exceeds the number of males present around Kanha, for many of the animals were recorded repeatedly during our daily counts to increase the sample size and the reliability of our results.

Young adult stags seem, on the whole, to have their antlers free of velvet earlier in the season than the old ones. For instance, in February roughly 2/3 of the stags which ultimately had antlers 11 to 20 inches long had shed the velvet, whereas only 1/3 of the stags with antlers over 31 inches in length had done so. However, as noted earlier, almost all stags were in hard antler by early May. The predominance of stags in hard antler during the hot months from mid-April to mid-June coincides with the peak of the rutting season.

Yearling male—The first set of antlers is visible as two prominent skin-covered bumps or knobs by the time the young stag is 11 to 12 months old. These knobs grow until, when two inches or more long, they become distinguishable as velvet-covered spikes. The velvet is subsequently shed and the hard spikes are retained until the stag is about two years old. At that age he drops the spikes and grows his first set of adult antlers.

The majority of cheetal young at Kanha are born during the cool seasons of the year, from mid-December to mid-March, with the result that the antler development in yearling stags follows a pattern somewhat different from that of the adults. As shown in the table, only 28 per cent of the yearling males had hard spikes in May, contrasting with the 96 per cent of the adults which were in hard antler at that time. Although yearlings shed the velvet from their spikes some three months later, on the average, than the adults, they lose their antlers at roughly the same time as the adults. This synchronized shedding of antlers assures the yearlings their first set of adult antlers in time for the peak of the rutting season.

These data from Kanha National Park show that yearling and adult cheetal stags with antlers in velvet can be found during every month from January through June and undoubtedly during every month of the year. However, there is a decided period from March to June, and perhaps July, when very few antlers are shed, and a time during May and June when less than 5 per cent of the adult stags have antlers in velvet.

It happened in India.....

'My Forest', the journal of forestry of Mysore State, in a recent issue speaks of 'cheetal' in-velvet as having "hard spikes". Now we have heard all and know why our wild life is being decimated !

Twenty four grenade bombs were recently tossed into the Ganga by troops on an exercise coming from Lachiwala in the Doon. (See also, an Appeal to the Army.—Ed).

Bird and animal exporters are continually exerting pressure on the Government to permit greater exports of such items as peacock feathers, the neck feathers of the grey jungle fowl, lizard and snake skins, etc.

A few years ago it was only the timely intervention of an ex-Inspector General of Forests in a meeting of the Indian Board of Wild Life, which prevented the ban on export of peacock feathers from being lifted. Even India's national bird is not safe from greedy exporters !

And How They Do It Elsewhere.....

The bill now before the Senate of the United States of America to lift all duty from wild animals coming into that country is likely to meet with stiff opposition from conservationist groups, who fear that it will indirectly lead to the depletion of certain species of wild life in the world, particularly rare and vanishing species like the orangutan.

A quarter of a million dollars worth of wild beasts and birds are imported into the United States annually, duty free, for non-profit zoos and scientific purposes. Only about 50,000 worth are imported for re-sale or for commercial exhibition. The duty is $7\frac{1}{2}$ per cent.

(P.D. Stracey)

Director of Forests, Nagaland,
Kohima.

Extract from the article "Poison in Pesticides is a Serious Threat to Britain's Wildlife" by Peter Scott, published in the SUNDAY TIMES 'Weekly Review' of August 2nd, 1964.

"Naturalists and especially bird protectionists, have for some years been perturbed about the effects of pesticides on wild birds, and a succession of official committees have edged all too slowly towards the recognition that the problem is a serious one. They have finally been pushed over the edge by the initiative of the Royal Society for the Protection of Birds and the British Trust for Ornithology, in collaboration with the Game Research Association, in analysing, at considerable expense, a large number of bodies of dead birds and proving that they contained lethal quantities of pesticides, notably Aldrin, Dieldrin, D.D.T. and their derivatives.

Faced with this evidence even the official chemists and agricultural scientists have had to beat a retreat—it is not so long since they were stoutly denying that a problem existed at all. The result has been that Britain is leading the world with a ban on the use of Aldrin, Dieldrin and Heptachlor, except for certain limited purposes, with a strict control on any extension of the use of allied and equally poisonous organochlorine compounds.

The U.S. Congress has given a first hearing to a bill (H.R. 9070) which provides a strong policy for wilderness protection, and lays down guidelines.

From the States

Madras:

We have reports that the black buck of Point Calimere are doing well under the natural and departmental protection afforded them. No study seems to have been conducted about them, or about the black buck anywhere in India, and we are waiting for someone to come forward. (For more about black buck, please see article on Environmental adaptation in this issue).

Andhra Pradesh:

More reports on the slaughter of small game by starving tribals of the Kond-area. Bison, elephant and the carnivorae seem to be the only species which still survive in numbers. It is natural for them to turn man-eater if small game continues to be hunted down indiscriminately.

Bengal:

We keep getting contradictory reports about the status of wild life in the Sundarbans region from several correspondents. Could we request some of our members who have been there personally lately to write in to us giving authentic information ?

Madhya Pradesh:

Mr. S. Lal of Nagpur writes to say that "tens of tigers are being shot down by police and other officers and individuals under cover of the hunting of man-eaters. No system is being followed in confirming that tigers shot by these people are indeed man-eaters."

Would someone like to tell us more about this ?

Uttar Pradesh:

The lions introduced into the Chandraprabha Sanctuary by the Government department concerned have died, says one of our correspondents; "only one survives, contrary to the official reports published from time to time". We have no confirmation from the Department yet ?

Another correspondent writes to complain that the tigers shown to visitors to the Corbett Park are too tame.

We would recommend a short walk in the Kalagarh Division to this bold individual; the tigers of Kalagarh outside the Park are not tame.

Appeal to the Army

The Indian Army has always had a strong tradition of good sportsmanship and adventure. We ourselves have been brought up on the fine spirit of men like General Bruce and Lieut. Rundall, of the Murrays and the others who gave us all we know about the mountain fauna of India.

That the spirit still survives if in modified form is evident from all the letters we receive from officers of the services, as the one from Brigadier Mansingh about the *Ovis ammon hodgsoni* demonstrates.

And yet, the gravest danger to Himalayan wild life to-day comes from the ruthless slaughter of mountain animals by the various cadres of Government Police personnel and troops posted in the high altitude regions of the Himalayas.

In the name of all the valiant traditions of the old Indian Army, we appeal to the Officers of the Army of to-day to ensure that the men under their command hunt and chase the gift of 'game' in the spirit of the sport and not merely for the 'pot' in disregard of the rules.

We invite them to join the Society and offer every assistance to true sportsmen.

Ed.

Wild Life in Open Country—I. The Black Buck

(Part of the Wild Life Society's Research Project Report)

The problems posed by the species who inhabit or visit open, or flat country, like the black buck and the gazelle ('chinkara'), or the 'marginal' instances like the meadow-visiting 'cheetal' and the swamp deer are somewhat different and more difficult than those of forest-wild-life. The forest provide a minimal cover which permits pockets and groups of even the worst-hunted animals to survive in even the most-badly-poached areas.

There is no such natural protection to these open-country species. Black buck have dwindled from an estimated figure of 80,000 in 1947 to the current estimate of 8,000. These figures are based on a census conducted by the late Major S.K. Dang, Indian Artillery, then a subaltern, and myself during a motoring-trip round India. The method we then followed was not based upon any specialised study of the techniques in use in wild life

management or study in countries like the USA, but upon reading books on wild life management now, it transpires that they were more or less similar to the methods advocated by qualified managers for sample-censuses. The current figure is probably more accurate than the earlier was for that time, since a close correspondence has been conducted with 'shikaris' living in the villages in areas where black buck are known to survive in numbers.

The weak link in the figures for to-day is likely to be the numbers in Peninsular India, of which we know only through correspondents.

In the north there are herds of over twenty in and around the following centres :

Hissar: The grand herds of ten years ago which roamed the 'sanctuary' of the 'bir' just outside this district town have vanished, as the canals have come cutting through their desertic flats. One renowned family of Punjab alone has claimed a minimum of two hundred black buck in their jeep-shoots. Even so, over a hundred black buck have been seen by us during the course of much motoring in the Hissar area, and reports would put the figure at thrice that.

Ferozepore and the 'khadar' areas surrounding: Though only one herd could be seen in three days of walking and motoring, reports place their numbers at five hundred, specially in the 'khadar' area.

Rewari: Some one hundred or so animals survive here, and three herds were seen numbering fifty five animals.

Kapurthala : Shooting is still going on here and at least three hundred animals survive in the neighbourhood of this district town.

Ganganagar and western Rajasthan between them seem to have almost five hundred black buck still, though this figure is based on unconfirmed reports.

Though very few black buck survive in Kanha, our report from Gwalior and Shivpuri suggests that black buck have moved into the forests for protection and a gradual change seems to have taken place during this process of adaptation, of which more later.

Uttar Pradesh: Large herds, of fifty and more, survive in the Dankaur 'khadar', the Hastinapur area near Bulandshahr, Hapur and the neighbouring regions.

Smaller herds and individuals still roam around Saharanpur, the entire Jamuna and Ganga 'khadars' and near Lucknow.

More information is still coming in and figures will be confirmed once facilities have been provided for the detailed census we have in mind.

The most important and ecologically interesting points that emerge from our information to-date are :

1. That black buck have fled the automatic rifles, telescopic sights and 'motorised' shikaris to take shelter in the cover of thinner scrub forests, riverain forests and even primary forest growth.

Essentially a field and flat-plain dweller, where it likes to spend the heat of day under the shade of trees or standing crops with one or more does to guard its rest, the animal has changed its habits under the pressure of ruthless decimation.

2. The greatest weakness of the black buck was its habit of waiting till the 'shikaris' approached close enough. The natural curiosity of the animal was its undoing. Even when it fled in alarm, it generally gave excellent shots to shikaris by its habit of springing straight up into the air in fantastic leaps on its spring-loaded muscles. These first few bounds were made less with the object of making a quick getaway than with the purpose of taking a good close look at the danger; even when the vertical bounds became twenty-foot leaps across obstacles and fields, the herd would provide easy rifle-fodder to the callous shikaris who 'brownd' them off, and generally bagged the slower bucks. Hence, too, the large disproportion between bucks and does in the famous herds of the Indian plains.

In its new forested habitat black buck seem to have become 'slinkers'. They no longer leap up at the sign of danger. They scramble to safety in quick cantering gait. They live in twos and threes and not in vast herds, and they seldom foregather into herds larger than ten or a dozen.

3. There was a regular seasonal movement of the old black buck population of the plains of northern India. With the arrival of the monsoons, the large herds of the 'khadars' of the great rivers would move in masses to the dry ground higher up. For instance, between 1946 and 1956 we studied several herds, and the following is a rough picture of their movements :

There was a two-hundred-strong herd in the Yamuna 'khar' near Ballabgarh and Chhansa some forty miles from Delhi. The herd would move to a vast dune five miles away in the month of June, and in July and August it would trek across the first range of the Aravallis to Sarmathla in Gurgaon District, where we identified them for ten years regularly with the help of several clearly marked animals, one a hoary fellow with one horn.

Similarly, a herd in the Dankaur 'khar' across from Chhansa was in the habit of moving up to higher ground on the main Bulandshahr-Aligarh road in the month of July.

A herd of three hundred black buck from the Ganga 'khadar' below Purkazi on the Purkazi-Ganga 'khadar' track would move gradually upto almost the neighbourhood of Saharanpur, where it was always joined by smaller herds from the Jamuna 'khadar' which is only some twenty-odd miles from this district town.

Instances of this abound in our 1950-diaries of black buck shooting and observation; they illustrate very clearly that the black buck did not like the moist and swampy monsoon conditions of its winter ground.

Now, however, black buck herds which still survive in these areas seldom leave the cover of the 'khadar' riverain forest of tamarisk and spear grass, etc. This year, with an exceptionally heavy monsoon, some thirty black buck were seen near Purkazi and we tried to photograph them, but they were exceedingly shy and ran away in a swift canter from half a mile off.

Another consequence of this change of habitat region has been seen in the workshop of a taxidermist, where seven illegally shot black buck from Uttar Pradesh and parts of Madhya Pradesh have come in. The hooves of these animals, in comparison with the hooves of an animal collected from Gurgaon district and the hooves of those we ourselves have shot in the past, are a good one to two to three inches longer. This might be the result of the environmental adaptation under way, for elongated and flattened hooves would assist the animal in gaining speed in getaway in marshy ground and the softer forest soil and humus where it now moves.

We cannot say much more about this adaption process just yet till more first-hand data has been collected, but it is clear from these seven animals recently collected that black buck, which always had softer hooves than other 'ungulates' have now begun to have even softer, more elongated and flattened hooves. The size of these animals too, was smaller than of erstwhile grown bucks. The colour was darker and the horned more rugged and smaller than might have been expected from such dark-coated bucks.

Where this process will eventually lead is an interesting field for speculation.

The social organisation of the herds has undergone a like change. The striking disproportion between bucks and does in their numbers has also diminished, as has the relative 'regard' paid to the bucks in the old days. There never was a clear-cut 'pecking order' in black buck herds, possibly because of the plentiful supply of fodder in open fields. Now, with a hardening in the attitudes of the cultivators, who previously never bothered about the crop-damage they inflicted, there seems to be the beginning of some such phenomenon in a very modified form. Bucks always asserted their rights over a certain following of does and duels over this following were a common and fascinating early-morning sight on the Indian plains. Now, these duels seem to be being fought over matters of who gets the best

patch of a field. In the instance here discussed, it was the shikari with us who triumphed over the fighting bucks, much against our insistence that he leave them fight it out.

The food habits have also changed correspondingly; the old diet of mustard, and wheat seedlings and various 'pulses' has been diversified to include whatever offers. Sugar-cane is increasing as an item in the diet, as it happens to be the chief crop of the 'khadar' regions. I was astonished to see that black buck had been feeding on the green shoots of 'khadar' grasses, generally cropped only by pig and hog deer, in the past.

So far, this covers in brief outline most of what we have been able to learn. We hope to publish in greater detail our findings after they are complete.

Unfortunately, any kind of original work of this kind, specially field work, involved much expense of time and substance, and without substantial help from Government or other sources, it is a great drain on the resources of the private individuals who are conducting this project.

Hari Dang.

The Himalayan Wild Life Research Project— First Project Report

BY

HARI DANG

Despite much progress made in the work, no financial or other assistance has yet been forthcoming and the progress is slow. Two trips have been made personally for the purpose of field research, and work is being carried on through 'hired hands' at altitudes ranging from ten to eighteen thousand feet above sea level.

Efforts are being made to procure a syringe-gun and a complete set of 'C-ap-Chur' equipment manufactured by an American firm, as these would greatly expedite and facilitate the work of photography and study of animal behaviour, social organisation, breeding and life cycles, etc.

Meantime, comes news that the Government are establishing a high altitude 'zoo' for Himalayan Fauna near Simla. We are in touch with the Indian Board for Wild Life and the administrator-designate of this zoo and hope to co-operate with them in every possible manner in this urgent and useful task.

A tentative survey of wild life in the NEFA-Himalayas is to be made this October/November, and efforts made subsequently to capture some of the rarer species in danger of extinction, like the 'shou' and the 'thakin'.

From correspondents and sportsmen posted to the border regions, we have received adequate confirmation of our own findings that there is virtual decimation of high altitude wild life going on in the Tibetan marches of the Himalayas; animals like the 'chiru' and the 'goya'; (the Tibetan Antelope and the Tibetan Gazelle), and the 'nyan' (*Ovis ammon hodgsoni*) and the 'shou' (the Sikkim Stag) have been reported as having migrated to the Indian side of the border in some numbers in certain areas for the greater protection afforded by the rugged terrain.

'Tahr' (*Hemitragus jemlahicus*):

It is strange that this toughest-to-get of all Himalayan 'trophy' goats should have inspired more interest in New Zealand than in India! There it is hunted and bred by devoted enthusiasts, while here I have yet to come across a Forest Officer who has ever seen it, far from having shot, photographed or studied it.

The stomach contents of four of these animals, killed over the years, have been examined and a record made of their diet, seasonal movements, vertical and latitudinal migrations and present status. The future prospects look gloomy as the troops in the border regions show an understandable fondness for the 'pot' values of the meat, especially as in the winter months they are easy to massacre when they descend to low ground above villages.

A report has come from the Dachigam Sanctuary that when the Game guard opened the door of one of the rest houses in the sanctuary after the winter months, he found no less than twenty of these animals dead inside. In this case the cause seems to have been the accidental shutting of the latched door when the animals had taken refuge inside from the blowing blizzard outside. They could not leave the hut and died of starvation! This, of course, is an exceptional case.

A 'tahr' kid has been caught by one of our less scrupulous 'village shikari' friends, after he had killed the mother this summer. We are financing the upkeep of this young animal and hope to provide him with a home at some high altitude zoo soon.

'Burrhel' (*Ovis nabhura*):

Over a dozen of this species have been 'collected' and their stomach contents examined for determining their food habits. An almost complete and uniquely exhaustive study has already been made of their other ecological relationships.

'Burrhel' have been the worst sufferers in the great 'Invasion' of the Himalayan wilderness, but they are very tenacious and breed more prolifically than their austere cousins, the 'ibex' and the 'tahr', and are likely to survive, if only in the less 'strategic' valleys.

'Ghooral' :

This smallest of the goat-antelope tribe is much hunted by sportsmen and villagers all over the foothills of the Himalayas, and its numbers have undergone a severe decline recently according to our sample surveys in Garhwal and Kumoan. Its habits are much easier to ascertain because of its relatively easier terrain and less inaccessible habitat, and we have an almost complete data-diary ready.

The greatest enemy of the 'ghooral' is the motor-road and the village-shikari. The one makes its haunts easily accessible to the city-dwelling sportsman or visitor, while the latter's familiarity with its daily routines renders it easy prey to his 'buck-shot' and breech-loader.

'Musk Deer' (*Moschus*):

This shy animal is still being hunted ruthlessly in the inhabited valleys for its valuable musk-pod, and export of this item is, presumably, still continuing.

It will not be possible to study the musk deer till more funds and capture-equipment make more intense work possible. Meanwhile, the musk deer continues to enjoy a modicum of protection afforded it by the difficulty and inaccessibility of its terrain in the lesser-known valleys, even though it has been virtually wiped out in the more frequented valleys, specially those served by roads or under troop-occupation.

Under the stress of these new dangers, the musk deer, according to our observations, has changed its habits by becoming more of a forest-animal, sheltering in the birch and conifer stands which were only its winter refuge some ten years ago. A similar movement to the security of the forests is seen to be proceeding in the case of the black buck, as it was earlier noted in the case of the swamp deer and the cheetal. With black buck, this process has led to certain radical alterations in the adaptation of the normal hoof-pattern to a more elongated, almost hideous, swamp-hoof pattern. (For further information on black buck, please read wild life in open country)

'Ibex' (*Capra sibirica*):

One of the true goats; the ibex is the finest mountain trophy available in India, after the 'nyan'. Its range had been more or less definitively established as 'west of the Sutlej' except for one or two stray instances recorded where some ibex had crossed the snow-bridges over the Sutlej and been stranded when these melted, and then seen to the east.

Now comes a report, yet to be confirmed, that ibex in appreciable numbers have taken to staying on the east bank of the Sutlej throughout the year. They seem to have been driven south-east-wards from the Tso Moriri lake region of the Indo-Tibetan marches, presumably by much shooting by the occupying Chinese troops on the other side.

This southward exodus of the ibex, as also of the *Ovis ammon* (below), would seem to be part of a general southward exodus of all wild life from Tibet. So far these 'animal refugees' are not getting too rough a deal in India, and the situation in Spiti and Lahul, their strongholds in the Indian Himalayas, is much improved since the imposition of a heavy penalty on defaulters against the shooting season and other regulations. Much valuable information and data has been gathered during a five-week trip to Lahul this summer, but much, much more work, dependant, unfortunately, on the availability of finances, remains to be done on this fine species to make its position secure.

'Markhor' (*Capra falconeri*):

Most of the acknowledged 'markhor' country went to Pakistan after partition in 1947; yet, an old 'mountaineer' from Chamba has written to say that, while grazing his herds in a valley east of Kishtwar, he saw a herd of seven 'markhor', with two grown male.

This is precisely the valley, east of Kishtwar, where we shot an ibex some ten years ago, and saw what we thought were 'markhor' even then. We tried to confirm this with the Bombay Natural History Society, since the distribution normally assigned to 'markhor' is clearly west of the vale of Kashmir, or to the north, never to the east.

To ascertain this would require another trip to this valley which we cannot just yet afford, but this report highlights the general lack of definite information about mountain fauna:

Ovis ammon hodgsoni:

This sheep and the *Ovis poli* have been the proverbial Himalayan trophies from Kipling's verse, and for the first time in our memory, two passable rams have been shot in the Nelang Pass region by two army officers. Similarly, more *Ovis ammon* rams have been seen and tracked by me on the Indian side of the border in Lahul, indicating further evidence of the southern movement of Tibetan species.

Brig. B.D. Mansingh writes to us from somewhere on the border, the following note about his experience with *Ovis ammon*.

"I was out on work and took a morning's walk from my camp at 15,500'. I walked along for a few hours till at about 19,000 ft. I saw eight of these animals—all males. I had seen only female 'Burhel' up to then. It appears that during May and for some months

before and after all these animals separate from their males, and one either sees herds of males or females only and these also miles apart. Generally I found that the males stuck to great heights and the females and young were seen lower down. Any way I saw these eight males (I ascertained this through my binoculars) from a distance of about 800 yards. Therefore, I started stalking them, taking great care of the direction of the wind. However, they have, I found, excellent sight and although I tried all the arts of crawling I had learnt twenty or more years ago, I found to my chagrin that I was not getting very much nearer to them. Fortunately I had a telescopic sight to my rifle and some soft nosed ammunition and after an hour and a half of stalking them and there being no depressions beyond to give me cover, I decided to take a shot at the big fellow, and dropped him. This animal I had got and which was exactly the same colour and size as the remainder was a gratifying trophy. Unfortunately I had no camera with me and thus have no photograph of it.

‘Serow’ :

Very little is known about this brutish creature, and his very name is becoming synonymous with mystery.

We are hot on the trail of a pair of ‘serow’ in a certain valley in Garhwal, and shall be able to capture them once the inevitable equipment is available. Till then, we are contenting ourselves with preparing a distribution chart on the basis of ‘second-hand’ information.

‘Red Bear’ (*Ursus arctos isabellinus*):

The red bear has always been a shy creature, and though much shot-up in Kashmir and some parts of the Indian Himalayas, its numbers have not appreciably declined because it, too, has fled the ‘Great Invasion’ of the Himalayan fastnesses by taking to the higher altitudes in a big way. Red bear have almost disappeared from valleys where motor-road noises have burst upon the timeless silence, with the result that there are more than ever red bear in the isolated valleys. A distribution chart with quantitative distribution signs is being prepared, but much more remains to be done.

‘Shou’ (Sikkim Stag: *Cervus elephas wallichii*):

Two reports have come in, one from the Chumbi valley region, and another from the Kameng division of NEFA, about this rare cousin of the Kashmir ‘Hangul’. It seems the ‘shou’, which originally inhabited the upper reaches of the conifer forests of the Chumbi valley, have moved lower down and over into Indian territory. Unprecedented numbers of them have been seen by a one-time guide; this information is second-hand, and while trying

to confirm it, we must report that the only way to confirm or discount this report is a personal visit, which lack of funds makes impracticable just yet.

The Sikkim Stag, it may be mentioned here, differs from its Kashmir cousin in having two extra tines just above the root of the antlers; these tines project outwards from the forehead.

'Thakin':

A four-week trip after the 'thakin' has been arranged for October-November. Details are being finalised, and it is hoped to obtain a capture-gun through the good offices of a Government department, or from outside India by the time this trip materialises.

Summing up:

Though much has been done over the last few years on Himalayan fauna and a nucleus of reliable data built up, a lot more work will have to be done to complete the project. All this will depend on the availability of funds. Sample surveys and censuses and distribution data must be collected; arrangements must be made for capturing and breeding these animals under more or less natural conditions.

At this stage it would be too much to hope for help, but we are confident of eventual assistance from many sources, once more facts are collected.

Library Appeal

The beginnings of a good wild life and natural history library have been made at the Society's Office, and gifts of books have been received from the President of the Society and from others.

We would be very grateful for the gift of all books having a bearing, however remote, upon subjects of natural history.

Members who have in their possession old books on sport or wild life are requested to let us know if we could borrow them for the purpose of collecting valuable data from them.

All contributions will be acknowledged.

Members may borrow books from the Office by Post.

World Wild Life Information:

Readers are invited to utilise our services in answering any questions they might have. We would be very glad to receive your queries and any information which you might have to offer for this column.

BRITAIN TO CONTROL IMPORTS OF RARE WILD ANIMALS

Government Support for Measure

The British Government is to introduce a Bill designed to prevent the indiscriminate import of wild animals—many of them rare—into the country.

The "Importation of Wild Animals Bill"—called on the Government to take action in restricting their importation. The Minister congratulated Miss Harvie Anderson on introducing the bill and said its principle had the support of the Government. He was aware of the justifiable concern of such organisations as the International Union for the Conservation of Nature and the Fauna Preservation Society about the extent of international trade in rare species of animals.

Miss Anderson said she believed the bill to be of world-wide interest and importance for it had been agreed by many experts that such legislation was desirable "as part of a world-wide attempt to curb illegal traffic in rare animals".

Miss Anderson said a large number of countries had signed a resolution calling attention to the major threat to the existence of some rare animals by their illegal exportation from their country of origin and subsequent legal importation into other countries.

The Minister promised Miss Anderson all the facilities of the Government towards drafting a suitable measure restricting the importation of live animals of certain types. He proposed that the new measure should be introduced as soon as possible.

INDIA'S ANIMAL EXPORTS

Leopard and tiger skins continue to be exported from India on a large scale. We mentioned in our last issue the Ceylon Government's curb on such exports, and now Britain has also given a lead by restricting at least, the importation of live animals as such importation leads to the decimation of the species in its habitat region.

INDIAN ZOOS

We invite information or articles by readers on the zoos in their own areas for documentation in the Society's library.

CHINESE TRADE IN HIMALAYAN ANIMAL-PETS

One of our Khampa friends, who used to go mountaineering with us in the 'good old days' before the occupation of Tibet by China, has recently contacted us with sad intelligence. The Chinese Militia and troops in Tibet, allover the desert mountains, have been massacring 'chiru' and 'goya' and 'nyan' and all the other animals of those desolate grand wastes for the 'pot' with automatic rifles and weapons.

This ties in with our own considered view that a very large scale extinction of wild life is occurring all along the Tibetan marches as well as in the interior desert regions of Central Asia, and highlights the need for study and protection measures.

The Bird of Kings

By

S.M. OSMAN

The origin of falconry belongs to a remote past where myth and history mingle. In India it was practised some two thousand years ago. Learned 'pandits' maintain that mention of hawking has been made in the Vedas written two thousand years before Christ. An argument in favour of this claim is that one of the words mentioned in the Vedas is "Syena Jini" and this is supposed to refer to a person who lives by selling or training hawks. However, the actual date when falconry made its debut, and the country of its origin is very difficult to label. Harting, in his "essays on sport", mentions its practice in China 2,000 years before Christ. The Persians claim that the first 'falconer' was certainly a prehistoric Persian King named 'Jahmuras' who according to Firdausis 'Shahnama' had chosen from all the birds of prey, the 'goshawk' and the "proud Shahin" and these he trained to hunt. The Arabs definitely learnt this art from the Persians.

The fact remains, that this noble art does go back to the remote and unwritten past and, to this end, clear proofs are available in the frescoes and sculptures of the early Egyptians and Persians. The Greeks, however, knew nothing of this wonderful sport but the Lombards of Northern Italy in about 560 A.D. were acquainted with the art. By 875 A.D. falconry had established itself and was known throughout Europe and even England. Returning crusaders familiar with the methods of the Orient were able to give this art a further impetus in the Occident.

In the very beginning the practice was undoubtedly resorted to as a means of providing food for man. Today it survives as a romantic and energetic pasture. Slaughter of wild game is now the privilege of the shot gun in which the practical poacher is sure to find a quicker and a surer way of getting meat

The history of falconry is of very high descent and as Freeman and Salvin have written "It boasts a long line of ancestors, and has claimed and received homage from the chivalry and beauty of many centuries." It has, indeed through all these ages, been the sport of kings and nobles and, has even to this very day devotees all over the world. Great upheavels throughout history have been quite unable to obliterate its charm.

Falconry in India was kept alive by the princely families in the country but with the change in times interest in this sport has almost completely vanished. Hardly any falconers still remain in India. Though India may have been at one time the falconer's fort the art is very rapidly vanishing from this part of the world. Some twenty years ago a small number of enthusiasts could be mustered but now their ranks have shrunk to a miserable half dozen or so. Their descendants have taken up other professions since falconry to them is no longer a paying job.

Still worse is the fact that some people are in the habit of casting a shadow of cruelty on this noble sport. Criticism of falconry on grounds of cruelty can be made only by the ignorant. A dispassionate survey will confirm that in no other sport throughout the world are hunter and hunted so evenly matched. By nature all wild life including birds is well able care of itself. In falconry it is not an uncommon occurrence to watch the quarry outfly its pursuer. In addition, there does not arise the question of game going off wounded and dying in agony. Either a kill is made outright or else the fortunate quarry gets off untouched. Also right upto the very end, the quarry has an even chance to trick the pursuer and get away.

To the poacher who goes about with a shot gun, luring birds with grain strewn on the ground and claming two or three with a single shot, and wounding a few more in the process, falconry has no charm, since the returns in this case are small relative to the energy and time expended. But falconry is a noble sport as it demands restraint, tolerance, patience, and above all, skill. Style in falconry is of primary importance. It is not the number of kills that really matter but the manner in which a single kill is conducted. For in falconry, falconer and falcon at the time of the hunt become one. It is not a game picked up as a side line to be later cast aside. It is simply and truly in the words of a worthy falconer "a way of life".

I must once again quote from Freeman and Salvin's wonderful work, "not to love hawking is a proof of the grossest vulgarity of disposition, and of many drops of churlish blood".

In India there still remain latent and unlimited possibilities of developing this sport. The country is rich in hawks and falcons. There is also a lot of game for the purpose. A desert falcon "*Saker falco Cherrug Cherrug*" which is quite a common bird in many parts of India provides a breath-taking experience when flown at kites, and owls. It is also very good in taking small ground game such as hares. The sparrow hawk "*accepter misus misus*" which is very plentiful all over northern India is another stout hearted little hawk which, if trained properly, will tackle grey partridges with great ease. Goshawks "*accepter gentles*" are mainly to be found in mountainous regions. Being rather shy birds, they are difficult to capture. Once trained they do provide a lot of fun and many hours of hunting. They are probably the best kind of hawk for a country which is thinly wooded and is interspersed with open tracts and thick bushes.

In the open season, game birds such as partridges, pheasants, jungle fowl, ducks, etc., can be hunted with Goshawks. Rooks, crows, owls and hares may also be taken.

The Peregrine falcon is a winter visitor and is the most noble falcon of the lot. A large number of Peregrine falcons used to be trapped and brought to Amritsar for sale each year at a certain time. Unfortunately with a rapid decline in the vogue of falconry the hawk market at Amritsar has dried up completely. The falconer has now to find some other source of supply. I have had very difficult days trying to get hawks but luckily a few channels still remain unclogged and hawks may be had.

We have, today, every reason not to allow this valiant pastime to fade and wither away. Let us, therefore, resolve to rescue this our heritage from oblivion. And for this all sportsmen of goodwill must join hands so that a road to guide falconry once again to our lives may be discovered.

(Correspondence is invited from 'falconers' and aspiring 'falconers'—Ed.).

A Natural Sanctuary in the Himalaya:

Nanda Devi and the Rishiganga Basin

By

HARI DANG

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Introduction

Though I had heard of the natural sanctuary formed by a ring of high mountains around Nanda Devi in 1942, it was only in 1960, and again in 1961, that it was possible to actually visit the area, primarily with the object of mountaineering and photography. The second of these two trips eventually came to be sponsored by the Indian Mountaineering Foundation, the Mount Everest Foundation, London, and *The Statesman* newspaper, and the following report is based on information gathered during these two trips.

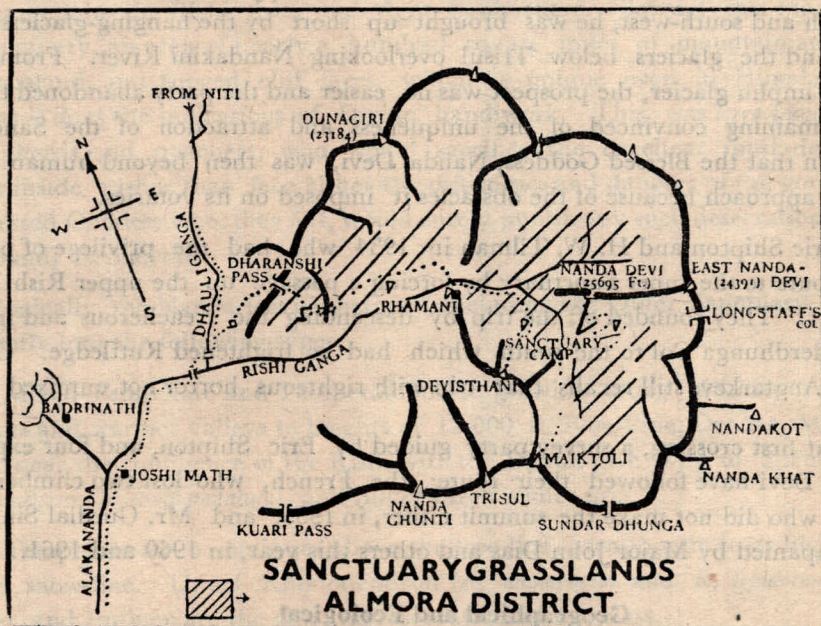
Nanda Devi is not only the highest mountain in the central Himalaya, but dominates 250 inaccessible square miles of the most beautiful mountain scenery in the world. The area around Nanda Devi is ringed by a continuous high ridge which descends below eighteen thousand feet only where Rishiganga River, draining the numerous glaciers of the region, has cut a deep and difficult gorge through the western side. Nineteen known summits of over 21,000 ft. stand on this ridge, which is located between the Dhauliganga and Goriganga rivers of the Kumaun-Garhwal Himalaya.

Much of this 250 square miles of mountainous terrain is alpine forest and pastureland, some accessible alps used by village flocks of sheep and goats, the greatest part the haunt of a wide variety of animals and birds characteristic of the higher Himalaya of the Indian region. The floral abundance alone is astonishing, not only putting the famed Bhyundar Valley (Frank Smythe's Valley of Flowers) into the shade in comparison, but also offering a potential hunting-ground for the plant-hunter because of its insular virginity. If detailed and expert surveys were carried out in the region, many instructive and useful relationships, ecological and biological, might emerge about environmental adaptation in the complete absence of human influences such as are not possible elsewhere in the higher Himalaya.

It is the purpose of this article to consider a far-sighted plan for preserving this whole self-contained watershed as something more than a Game Sanctuary, which is its present status according to the Forest Department. This may, it will be suggested, be profitably made the first Wilderness Preserve in India, after the pattern adopted in the United States.

Historical

The Survey of India had always looked upon the gap in their knowledge of this area as more or less inevitable because of its extreme inaccessibility. Light was first thrown on it by men working under the incentive of mountain-climbing and exploration.



W. W. Graham, accompanied by two Swiss guides, Ulrich Kauffman and Emil Boss, was the first enthusiast to try to force the gorge of the Rishi where it meets the Dhauliganga, some fifteen miles above Joshimath on the route to the border pass of Niti. A lone explorer and some hardy sportsmen, who have left no records, were his only predecessors, and he failed entirely in his attempt to traverse the almost overhanging lower section of the gorge, reaching the relatively easier middle-section of the Rishi over the 13,000 ft. high Dharanashi Pass situated on the outer ridge to the north, where it descends from the 23,184 ft. high Dunagiri Peak. Graham claimed to have climbed Changabang, an extremely difficult mountain above the foot of the toughest portion of the Rishi gorge, from where the Nanda Devi massif is only five miles away.

It was left to Dr. Longstaff in 1907 to make another attempt, and this he did with the Swiss guides, the Brocherel brothers, and General Bruce, of the Gorkhas. He also entered only the easier middle-section of the Rishi, known as the Outer Sanctuary, over the Bagini

pass to the north, and though successful in climbing Trisul (23,360 ft.) he too failed to find a feasible route over the last few miles of the Rishi gorge, despite gallant attempts from both banks of the thundering, constricted river.

In 1926, 1927 and 1932, Hugh Ruttledge, I.C.S., then Deputy Commissioner of Almora in Kumaun and a mountain-enthusiast, tried three other approaches to the Inner Sanctuary; from the south and south-west, he was brought up short by the hanging-glaciers of Sunderdhunga Col and the glaciers below Trisul overlooking Nandakini River. From the north-east, up the Timphu glacier, the prospect was no easier and the party abandoned the attempt, Ruttledge remaining convinced of the uniqueness and attraction of the Sanctuary, and equally certain that the Blessed Goddess, Nanda Devi, was then beyond human capacity or endurance to approach because of the obstacles it imposed on its votaries.

It was Eric Shipton and H. W. Tilman in 1934 who had the privilege of pioneering a memorable route to the Inner Sanctuary by forcing a passage up the upper Rishi gorge after weeks of effort. They rounded off the trip by descending the treacherous and insecure ice-fall over Sunderdhunga Col to the south which had so frightened Ruttledge. One of their two sherpas, Angtarkey, still recalls that trip with righteous horror not unmingled with pride.

Since that first crossing, a survey party guided by Eric Shipton, and four expeditions to climb Nanda Devi have followed their route: the French, who lost two climbers, in 1951, Major Jayal, who did not make the summit either, in 1955, and Mr. Gurdial Singh and the writer, accompanied by Major John Dias and others this year, in 1960 and 1961.

Geographical and Ecological

The central Himalaya can roughly be described as that section lying between the river Sutlej in the west and the river Kali (Mahakali), the Sharda of the plains, in the east. The Goriganga is a right bank tributary of the latter and drains a very large glaciated area. The Alaknanda, of which the Dhaulī is a left bank tributary, joins the Bhagirathi at Devprayag to form the Ganges of the plains. The Rishiganga is the major left-bank tributary of the Dhaulī and runs roughly east to west, draining the vast system of glaciers within the Nanda Devi area which, including in the term both the Outer and the Inner Sanctuaries, coincides with the Rishi's watershed.

Nanda Devi stands like a reigning deity at the end of the ridge which may be said to represent the shorter central arm of a reversed letter E, the two outer arms representing the high ridges which enclose the inner arm. Two other arms enclose the two outer arms, and Dunagiri and Nanda Ghunti are the western terminations of the northern and the southern arm respectively.

Nanda Devi Khal (19,390 ft.), known popularly as Longstaff's Col because that doyen of Himalayan exploration first climbed it from the east, and Sunderdhunga Col (c. 18,000 ft.) are the only two passes ever crossed into the Inner Sanctuary, but both are out of question for all but expert climbers. The only route feasible is up the Rishi, and this is now fairly beaten up to the foot of the really impassable gorge, known as Rhamani, because a torrent of that name joins the Rishi from the right bank there. Beyond this inner gorge lies the Inner Sanctuary, an area of nearly a hundred square miles of mountain and meadowland, gentle grassland, and rugged cliff faces, which is unique even in Himalayan experience, bearing as it does the indications of Divine handiwork. This was *terra incognita* even to the local shepherds and poachers, who would sacrifice the excellent musk-deer and Burrhel prospects inside rather than face either the difficulties and dangers of the gorge or the wrath of the Blessed Goddess who, they felt, would surely punish any such desecration of 'Dev-bhumi' (holy ground) by mortals.

Ecologically, the Nanda Devi Sanctuary, including the Outer Sanctuary, may be divided conveniently into the following types.

1. Mixed-Temperate and Temperate forest, growing along hillsides and in sheltered re-entrants and warmer valleys to heights of 12,000 ft. Blue Pine, Deodar, Maple, and Horse Chestnut near the confluence of the Rishi with the Dhauli give way to Spruce, Cypress, Fir, Rhododendron (*R. campanulatum*), and Silver Birch higher up.

2. Temperate scrub continues above the tree-line, occasionally to as high as 15,000 ft., near the snow-line. Dwarf Rhododendron (*R. anthopogon* and *R. lepidotum*) and *Berberis*, *Cotoneaster*, and Juniper are the chief representatives of this class.

3. Alpine pastureland, varying in luxuriance from the lush and succulent, flower-rich alps of the lower areas to the scrawny, thin-soiled growth higher up. This kind of vegetation extends as high up as 18,000 ft., some mosses and pads extending a thousand feet higher in favoured locations, depending upon season and insolation.

In the Inner Sanctuary, especially where Silver Birch stands are few, there are extensive grasslands and excellent soil; villagers working for us have often expressed wistful longing to get their flocks up for the rich grazing, and been treated to cold looks from conservation-minded mountain-lovers. In addition there are miles of snowfields, rock faces, and ice-cliffs, of apparent uselessness yet invaluable as hallowed ground for the ardent mountaineer or nature-lover. Here, too, are lakes that no one has ever seen, hundreds of high and not-so-high mountains no one has ever climbed, passes that have yet to be crossed, and cliffs and valleys that are still sacred to their pristine inhabitants, the Burrhel and the Thar, the Snow Leopard and the Musk Deer, and other slippery, lonely-hearted, eagle-haunted crags and

pastures, beyond the leap of goat, beyond the gaze of man, that still echo only to the shrill calls of the Monal and the melancholy whistle of the Snow Cock. No village or human habitation mars this pristine wilderness.

Flora

Lacking expert scientific knowledge, I have not made any wide and detailed observations or checklists, but I have personally seen or photographed, or seen companions photograph over three hundred different flowers, and this in the short period between climbing and travelling.

Animal Life

According to the Uttar Pradesh Forest Authorities, the entire area lying between the mountains Nanda Devi, Dunagiri, and Trisul is a Game Sanctuary, in the sense that no one is permitted to shoot there and shooting-permits are not issued. In fact, this is a 'paper' Sanctuary, like its coeval the Govind Ballabh Pant Sanctuary in the Tons Basin in Garhwal. Both have never been visited or explored personally by the contemporary 'paper' forest officers, nor are likely to be visited in the near future. Poaching on a grand scale is normal in the Tons Basin, and not uncommon in the Rishi Basin. Musk Deer are the chief quarry, hunted ruthlessly and bravely by the poor villagers for the valuable musk-pod, which sells at lucrative rates in the Kumaun and Garhwal fairs. For, strange to relate, the Government has given complete protection to the Musk Deer and yet permits the export of large quantities of musk to dollar area—at any rate, this was the situation till last year.¹

Burrhel (*Ovis nahura*) abound all over the less rugged areas of the Rishi Basin, and often even over difficult terrain. Their numbers have dwindled greatly since Tilman and Shipton first saw large herds. This is largely the result of poaching by villagers in the Outer Sanctuary. Still, they are even now excessive for the limited feeding which the pastures offer. Sheep and goats from villages as far away as Wan give Burrhel keen competition, and may be spreading epidemics that might be decimating their numbers unknown to us. The tenet that the wilder the animal the less its resistance to infection from outside is only too true in this case. The Himalayan Thar (*Hemitragus jemlahicus*) is a very plentiful game animal in the basin, frequenting the most difficult terrain in the gorge of the Rishi, coming out into the grasslands only in the post-monsoon months for a spell before retreating to overhangs and precipices for the winter. This animal, too, is suffering decimation by meat-hungry villagers armed with new gun-licences. Even without guns, both Thar and Burrhel, more so the former, are vulnerable through their habit of coming to lower rock-faces when the snow lies

¹ The export of musk is still unrestricted.—Editor.

deep on their summer haunts. Here they are cornered and chased by villagers and actually murdered with staves and spears. The means adopted to exhaust them before administering the coup, are many and ingenious, including lassoing them at night.

Musk Deer are still very plentiful, but are constantly molested, both by shikaris with guns and by shepherds with dogs, the latter being remorseless trackers of this highly odorous creature. Each time we went up the gorge, we met at least one large party of shikaris, who had had consistently successful hunting. One possible cause of the Musk Deer's abundance may be its greater propensity to take refuge in heights where even the shikaris dare not follow.

The Snow Leopard is another glorious animal which remains extraordinarily common, when a comparison is made with other mountain areas. This is not only the result of indifference from villagers, who are either too scared or too poor as marksmen to hunt him, but also of the abundance of Thar, Musk, Deer and Burrhel, its natural prey.

Though a few Black Bear have occasionally been seen, they are not common in the Rishi Valley, and this is only natural when the difficulty of terrain is considered.

Serow are not uncommon in the lower and less steep mixed-forests of the Dudh-ganga, Ronti-nala and Sat-pula-nala. Streams like these, originating in the glaciers on either side of the Rishi abound, there being no fewer than twenty major and easily one hundred minor glaciers which feed the Rishi. All these subsidiary valleys have their own pastures and forests.

Snow-foxes, Marmots, musk-rats and tailless rats abound.

Of bird life, Monal Pheasants, Snow Partridge and Snow Cock are very common in their habitat. The Himalayan Rubythroat, seen at between 13,000 ft. and 16,000 ft., was a constant companion of base-camp off-days, serenading the occupants from the early hours of the morning.

The Blue Rock Thrush was encountered in pairs and parties of upto four couple, flying around above alpine grassland. The Himalayan Greenfinch, Hedge Sparrow, Redflanked Bush-Robin, Whitecapped and Plumbeous Redstart, the Stonechat, the Kashmir Whitethroated Dipper were some of the more interesting birds seen and clearly identified, while notes were compiled of birds seen but not clearly identified. Detailed observations were not made as time was short, and mountain-climbing the main objective.

The Lammergeier or Bearded Vulture and the Golden Eagle were also seen. A large eagle (?) was seen in the act of swooping down and carrying off a Thar ewe.

Prospects for the Future

Though hitherto known to only a few enthusiasts, it is not unlikely that the area will arouse—has in fact, already aroused—great curiosity and covetousness, the former among prospective tourists, the latter among villagers desirous of pasturage.

Having observed with deep and helpless regret what the 'paper' Forest Department has done to the Valley of Flowers further west (I refer to a four-foot high boundary wall which has been built to fence off a horticultural scheme for some vague medicinal plants, right across the valley), it is my intention that a similar programme be frustrated by forestalling the authorities by making a wiser suggestion to them which they cannot afford to ignore.

Poaching, rampant now, is bound to increase as the number of guns increases. Already the Milam and some other valleys of Kumaun and Garhwal have been shot clear of Musk Deer, Burrhel and Thar, and skins of Burrhel and their young ones murdered in winter can be purchased for a few rupees in any hill fair or market-centre from Garbyang and Almora to Pipalkoti and Chamoli. In other mountain areas of India mountain game has been wiped out *en masse* by the army and the Border Police, and a likely increase in military activity in Garhwal would deal a like blow to mountain game here; hence the need for at least one region where not only the shooting of game but also the construction of monstrosities like the Bhyundar boundary wall can never occur. This requires something more than a Game Sanctuary status for the area and, in the current official mood of 'paper' sympathy for conservationist ideals, it would not be difficult to muster sufficient strength and momentum for the idea of a Rishi Wilderness Preserve to push through the necessary measure through Parliament, by which act alone can such a status be obtained.

Summing up

Perhaps I am carried away by my enthusiasm for the Nanda Devi area, which has for long represented to me an unattainable ideal, an intensely personal wilderness reservoir. This need not detract from the value of this wilderness in its unspoilt and untampered condition. If we can retain the Rishi's Sanctuary without a motorable or even a bridle track, without boundary walls and Rest Houses, without official interference or tourist-huts—and I do not think of the next decade only, but of the next century, granted that we survive this decade—then perhaps those who do not migrate from the earth will find some consolation in its tranquil snows and mist-wreathed pastures, its stupendous screees and gentle swards. This is the true aim of this article, though an inadequate attempt has been made to cast it in a formal mould.

'Wild' Cattle in Northern India

The occurrence of a herd of domestic cattle gone 'wild' at Bharatpur, referred to by Mr. E.P. Gee in these pages, is a fairly widespread phenomenon in the 'khadars' and wild scrub areas of the northern rivers in the Punjab and Uttar Pradesh. I have seen herds of these cattle personally in Gurgaon, Bulandshahr, Mathura, Karnal, Hissar, and Meerut districts, and have been told by reliable 'shikaris' that they are also found in the districts which surround the ones I have seen. It appears that their occurrence is connected with, in fact due to, the habit of leaving weak plough-bullocks and off-milk cows in these scrub areas with just a few boys to look after vast numbers of them. The result is the straying and ultimate abandonment of a few each time, leading to their going 'wild'.

I have had some interesting experiences with them; there are a few big herds in the Jumna 'khadar' in Gurgaon-Bulandshahr districts which stick to a chosen bit of high ground, in sparse tamarisk scrub with patches of stunted Dhak around it. There are no solitary bulls among them or in that area, and the membership of the herd keeps shifting steadily; each year a few village cattle stray into the herd and the villagers, after some encouragement and advice from me, now manage to recover a few each year. This is done by stalking them early in the morning when they are not very wary; after cutting off their natural lines of retreat by placing a horse and rider equipped with a lasso-rope, others drive them towards these village 'cowboys' who try their best to 'rope' them, frequently with success. The 'catch' is then broken-in by being hobbled and starved till it becomes tractable, and then gradually allowed to roam with other tame cattle; they show a tendency to return to the 'wild' herd if confronted with them, but otherwise they interbreed with tame cattle and produce offspring successfully. My notes on this subject of progeny are restricted to hearsay evidence, though from dependable sources. The village shikari, to whom I first suggested this idea of catching them by using horses to run them down after separating one or two from the herd, has made a small fortune by taming and selling them to the villagers. Another herd, nearer to Gurgaon and in completely dry, cultivated land, stays below the Aravallis just beyond Sohna on the Delhi-Gurgaon-Alwar road, and poses a problem to the distracted villagers. Not only does it annually seduce numbers of domestic cattle, but it also causes much damage to the crops, being scared out of one field only to enter the next. I discovered this herd only last year while out exploring a new jheel for duck, but since there were no horses in the nearby villages I would not emulate the 'khadar' experiment here. The villagers are nearly so enterprising this side, but may take to the idea if help is given them.

Another curious fact about them is that they often run with herds of Blue Bull, and it becomes quite a problem stalking the Blues due to the added vigilants. The 'wild' cows are

pugnacious especially when with young, and will rear back and stand their ground against intruders, snorting and scuffing like any ferocious bull in a village. The plentiful cover near which they generally stay indicates the possibility that cows may be going into hiding for the duration of calving, but I have once come across a cow with a calf at heel who was just about able to stand; she was ferocious and wouldn't tolerate a close approach, making short charges and feints to frighten me. I am sorry I didn't have a camera that time!

As for protection, until we can say with certainty that they inbreed and, given the opportunity, would develop special traits and characteristics, it seems somewhat unfair on the poor villager to allow them to persist and cause an annual loss of what to him is a fortune. But they certainly do add a picturesque and enthralling sight to our 'khadars', and can give good sport to a photographer by their constant and acute vigilance. Their resemblance to our Gaur is, to my knowledge, non-existent, at least in so far as appearance and habits are concerned. I wonder if some of the north-country members could give me any news about the presence of these cattle in their areas.

Hari Dang

EYEWASH!

From Our Correspondent

There are thousands of wild cows, which are a menace. They move in herds and totally destroy the fields they invade. The entire Tarai area on the Himalayan slopes is full of wild cows.

The State Government launched a scheme to catch these cows departmentally. A substantial amount was sanctioned and a cow-catching squad was formed.

Government had an ambitious plan for taming these wild cows with a view to forming a basic breed stock after mating them with high-grade Haryana bulls.

The scheme was in force for four years. Stocktaking now reveals that, though the department did not catch a single wild cow, it did full justice to the amount sanctioned! Nothing was left from it!

Rs. 20 per cow

At the same time, there were private cow-catchers to whom the Government gave a reward of Rs. 20 per cow caught.

These private cow-catchers caught 854 cows during the period, while the department could not capture even a single cow !

But the worst happened later. Government had undertaken the responsibility of taming the wild cows at breeding centres at Rishikesh.

Heavy Mortality

But it could not even save the wild cows caught by private catchers. Of 854 cows caught by them, 648 died and the rest escaped ! And so, not a single wild cow could be tamed.

Asked to explain the reason for such heavy mortality, Government said the cows were injured when they were captured and could not survive their injuries.

And the reason for the escape of the rest was that they made a combined attack on fences (joint exercises !), which gave way.

An MLA remarked: "Even in cow-catching, State enterprise does not succeed !"

Post Script: *From March of the Nation Sep. 5-1964.*

Animal Veneration in Ancient Egypt

By

DR. P.N. MATHUR

The ancient Egyptians' devotion to their sacred animals was very remarkable. It was a capital crime to kill any of them voluntarily. If an ibis or a hawk was destroyed by any one he was put to death by the citizens without any reference to a court of law. In order to avoid suspicion of such an impious act and punishment, a man who chanced to meet with a carcase of any of such animals, began to wail and lament and pretended that he found it already dead. At the death of a cat, every inmate of the house cut off his eye brows and at the funeral of a dog they shaved their head and the whole body. The carcases of all the cats were salted and carried to Bubastos to be buried with many pious grief and lamentation.

Every home in Egypt paid a particular worship to the animal that was consecrated to its tutelar god. However, ox, dog, cat hawk, ibis and the fishes termed oxyrhynchus and lepidotus were held in high reverence. Thus in each home the whole species of animals, to the worship of which it was dedicated, was held in great respect but one animal received the adoration of multitudes. In the home of Arsinoe, crocodiles were sacred. One

crocodile was kept in a temple and watched with great care and was called "Souchos". Sacred bulls were kept in several towns and villages and nothing was spared that seemed to contribute to the enjoyment of these 'horned gods' who were pampered in the utmost luxury.

Of Oxen

The ox kind received the highest honours in Egypt. No individual of the species was ever slaughtered merely for the sake of food. Bulls were occasionally killed in sacrifice but cows were exempted from this peril. They were sacred to the *Isis* (wife and sister of *Osiris*). When a cow died, they committed her carcase to the sacred river. However, bulls were buried with one or both horns above the ground for a mark and after sometime when the flesh was thought to have been rotted away, a vessel was sent from the island of Prosopitis in the Delta, with people who dug up the bones and carried them to a place of burial. This was the sort of general respect for the whole kind but the bulls, Apis and Mnevis were the highest in this rank. Apis was kept in a temple at Memphis and Mnevis at Heliopolis. Both were sacred to *Osiris* (the greatest of the gods of Egyptians, son of Heaven and Earth).

Apis was a black bull decorated by twenty nine sacred marks symbolising such sorts as the increase of the Nile, or microcosm or the representation of the world and like. Apis was the offspring of the celestial elements. His mother was supposed to have been impregnated by a flash of lightning or, according to another belief by the light of the moon. The discovery of a new Apis was celebrated by a festival which was called 'Theophania' or the manifestation of the gods. Next to Memphite Apis was the sacred Bull of Heliopolis called Mnevis. This bull was black. He was kept in a state which was regarded as the temple of the Sun and that he was worshipped as a god by the Heliopolitans.

Of Dog

Dog was sacred to *Anubis* and was chiefly worshipped at Cynopolis (city of dogs). The rites of *Anubis* were connected with those in honour of *Isis*, the dog received veneration throughout Egypt and dogs accompanied the celebrated Pompa Isiaca, or the procession in honour of the horned goddess. Many reasons are assigned for the reverence paid to dogs. Some people said that it arose from the idea that young dogs are blind for thirteen days after they are whelped and the moon is dark for thirteen days in a year.

Of Cats

Cats were chiefly worshipped at Bubastos. The anxiety manifested by the Egyptians to procure dead cats has already been mentioned. The epithets applied to them were such

as : "Per tua sinistra precor, per Anubidis ora verenda".

"Santa Bubastis—"The Holy Bubastis".

The mysterious relation between the number of young a cat bears at one litter and the number of the lunar days and by this analogy the Egyptians accounted for the veneration of cats. The Statue of the Sun at Heliopolis, according to Herapollo, was in the form of a cat.

Of Wolf

The wolf was worshipped at Lycopolis, as the name of the city implies. Wolf was sacred to *Apollo*, that is to *Horus*. The reason of this consecration is because *Apollo* was born of *Latona*, or as the Egyptians believed, nursed by her in the form of a wolf. For this reason a statue of a wolf stood in the temple of *Apollo* at Delphi.

Of Ram

The ram was held sacred at Thebes, in Upper Egypt, and Sais, in the Delta. Those who worshipped in the temple of the Theban Jupiter abstained from sheep sacrifice. They assigned as a reason for doing so that Jupiter or *Ammon* disguised himself in a sheep-skin when he appeared to Hercules. The Thebans never killed a ram, except at the annual festival of *Ammon* when they clothed the statue of the god with the sheep-skin. The statue had the human form with the head of a ram.

Of Goat

The worship of the Mendesian goat was one of the most singular part of the Egyptian superstition. These rites were abominable. The male goat was worshipped as an image of the same power which Greeks personified with the title of Priapus. One he-goat represented the god *Pan*, and was kept in the temple of Mandes, but all the species were held as sacred.

Of Monkeys and Apes

Babylonians adored a cepus which had a tail while. Hermopolitans worshipped an ape, *Cynocephalus*, one tribe of these apes was supposed to understand the use of letters and when a new ape was introduced in the temple, the priests tried whether he was competent to the dignity conferred upon him, by placing a pen and ink along with a writing tablet before him. Perhaps the Hermopolitans consecrated an ape to Hermes on account of its sagacity.

Of Hippopotamus

The hippopotamus was sacred to Papremis or Mars in the Papremitic home but in no other part of Egypt. Papermis appears to have been a form of Typhon and accordingly

hippopotamus was one of the animals called Typhonians. The ass was another Typhonian but did not receive worship in any part of Egypt.

Of Birds

Hawks were sacred to Apollo, whom they named as *Horus*. The priests of Horus were named as 'hawk-feeders'. *Horus* was one of the gods worshipped by the whole Egyptian nation and the hawk was sacred everywhere but was particularly sacred in Apollinopolis which was called the city of hawks. The temple of *Horus* contained a statue of that god with the head of a hawk. The reasons assigned for dedicating the hawk to Horus is the bold flight which the bird makes towards the Sun without being dazzled by its rays. So the hawk became a common emblem of the sun. The life of this bird was supposed to be seven hundred years. The species of hawk which was the object of this idolatrous veneration seems to be *Falco Communis* Linne.

The crow was sacred to Apollo, in Lucina vultures were sacred, the eagle in the temple of Jupiter Ammon and the ibis to Thoth or Mercury. It was venerated throughout Egypt as judged by the innumerable mummies of this bird which have been unearthed. The phoenix, a fabulous bird said to have lived in heavens but in order to taste death, came to the world and built a nest on a tall palm tree and after burning itself on a funeral pyre rose from its own ashes, was worshipped in Heliopolis. The phoenix legend has been very popular and the name has been an emblem of immortality and resurrection. There is no mention in ancient writings of the worship of goose. However, the custom of swearing by a goose which prevailed in Egypt probably owes its origin in the belief that *Rhadamanthus* (the judge of the lower world) forbade the Cretans to swear by the Olympian gods and ordained an oath by the goose.

Of Reptiles

The reason assigned for the worship of crocodiles was the Egyptian doctrine of mystical numbers. They believed that crocodile lived sixty years, lays sixty eggs which form a new crocodile in sixty days, has sixty vertebrae and as many teeth. The crocodile was sacred to Typhon who was said to have assumed this form. The Egyptians regarded the asp with peculiar veneration and tamed these serpents so well that they would feed from the hands of children and come from their hiding places, when summoned by some sort of noise. The influence of this superstition was so great, it is so said, that once a labourer digging a trench in a vineyard, accidentally cut an asp in pieces by the blow of his spade. The man was so terrified by the horrible impiety he supposed to have committed that he became frantic and ran about fancying himself pursued by the angry reptile-god. The statue of Isis was crowned with a coiled serpent who was supposed to be commissioned by the

goddess as a minister of her vengeance to destroy impious men. Another species of serpent which was termed a dragon was fed as a sacred animal in the Egyptian Melite. It was kept in a tower and the priests placed cakes every day in its chamber.

Of Fishes

Several fishes were consecrated by the Egyptians. The oxyrhynchus and lepidotus were held in reverence by all Egyptians, when fishing in the Nile, they were very careful not to destroy an oxyrhynchus which was supposed to have sprung from the wounds of *Osiris*. The oxyrhynchites were so enraged by the Cynopolites, who had offended them by eating the sacred fish that in revenge they seized upon all dogs that came in their way and killed them. There was a civil war between the two nomes and at length both the parties were severely punished by the Romans.

Of Insects

The Cantharus, Scarabaeus or Beetle was an emblem of the Sun. There were three species of sacred beetles, one of which was sacred to the god of *Heliopolis*, or the Sun, another sacred to the Moon, and a third one to *Hermes* or *Thoth*. The reasons assigned to the consecration of these insects are derived from the notions entertained respecting its mode of reproduction and its habits in which the Egyptians traced analogies to the movements of heavenly bodies.

Motives Behind Animal Worship

The reasons or motives which induced Egyptians to pay divine honour to irrational brutes is an inquiry which has always puzzled the learned. There are various reasons and contradictory opinions maintained with equal confidence. One of the obvious attempts is that the Egyptian paid divine honour to animals out of gratitude for the benefit derived from them. The conjecture is refuted as a large number of animals that were worshipped are either noxious or destructive. The hawk, the eagle, the hippopotamus can claim no particular regard for the benefits they are known to confer to mankind, still less the crocodile, the lion, the wolf, or the venomous asps. Yet all of them were worshiped with profound devotion.

Another attempt at explaining this mystery is that the sacred animals are the emblems of the constellations. The worshippers of the bull *apis* adored the living image of the caelestial *Taurus* and *Anubis* represented the dog-star or the constellation of *Sirius*. A third attempt has been certain attributes of the Diety were expressed in these animals. The Physical power of the gods was expressed in the lion and their penetrating eye in the hawk. However, a more laudible explanation is that the Egyptians held that divinity permeats

not only the human beings, that man is not the only being possessed of soul, but that all living being possessed a soul and the same spiritual essence of God pervades all living beings. Thus in fashioning images of gods they have adopted the form of all animals and have sometimes the human figure with those of beasts and birds.

Notes on Tiger Shikar

By

A. IMAM

The following characteristics of the tiger require to be considered when hunting this animal:—

1. Tigers have scarcely any sense of smell.
2. Tigers do not generally take up their abode in any one particular locality, but rather move in an extended circuit which brings a particular animal back to a particular locality in anything from 10 to 20 days as a rule. A tiger would normally only stay in a particular locality if it had a 'kill' to finish. Even so, if it fed a few days on one or more 'kills' it would then clear off though there might be a surfeit of food in the locality left.
3. Tigers are solitary animals. When mating the pair will be found together. A tigress with cubs will have the cubs with her until they are nearly full grown, or until full grown, when the cubs will wander off to live each on its own. Sometimes when the cubs are nearly full grown or are full grown, and before they wander off on their own, the male, female and cubs will all be found together. This period of family reunion is obviously short, and thus it is exceptional to come across a number of tigers together.
4. Tigers will fight to keep certain territories to themselves. A weaker tiger moving into the territory of a stronger tiger would keep clear of the more powerful beast.
5. Tigers hunt by moving silently at night along roads, pathways, dried stream beds, etc., depending upon their ears to locate their quarry. The quarry located, the tiger will take to cover and stalk its victim, finally rushing it when close. Obviously its hearing must be very acute, and is even sharper than its extremely keen eyesight.

Tigers cannot only hear the slightest sound at incredible distances but are able to pinpoint the source of the sound.

6. While a tiger will hunt, kill and feed anywhere in the jungle, it will not lie up during the day just anywhere in the forest. For lying up in the day it must have complete cover at ground level, shade and water to hand. Thus a tiger may be found lying up in the day in dense scrub on the level or hillside, or in a valley, or in tree forest in similar places provided there is dense undergrowth, in deep narrow ravines, in caves and in tall grass such as the 15 feet high elephant grass of the Terai.
7. While not lacking in courage, tigers are extremely cautious and cunning, and might give the impression of even timidity to those unacquainted with the real nature of the animal. The lion stands as a simpleton compared with the tiger. One may live years in tiger hunted jungles and yet never see a tiger by chance. By far most of the people living in tiger jungle areas have never seen a live tiger, and a dead one but rarely.

The first requirement in tiger hunting is obviously to locate the animal. Pug marks found, or news of a tiger seen by chance (so rarely!), in any area are of little help, for by then the tiger would be far away. It is only when a tiger has killed near a suitable lying up place that it may be lying up close by. If the kill occurs at other than a suitable lying up place, then the tiger may return to feed on that 'kill' later, but it will not be lying up close by. A suitable lying up place is known in Hindi as a 'Rehan', or place of stay.

Obviously bait is to be put out for tiger if one wishes to make contact with this animal. As it has little powers of scenting, dragging a dead bait for it to find the scent trail, as is done for lion, is not possible. Live bait must be tethered at suitable places, such as near pathways, dry river beds, etc., an intersection being about the best. As a tiger moves over a very large area indeed and may only reach a particular locality after days, or even weeks, if time is important then bait should be put out over a considerable area. For a 2 week hunt I would consider a dozen bait spread out in 200 sq. miles is desirable.

If a bait is not placed near a 'Rehan', then when a 'kill' takes place the only possibility is to sit up over the 'kill' await the tiger's return to feed, usually about or after sundown. Unfortunately tigers are extremely cautious when returning to a 'kill' and given to hanging about the immediate area of the 'kill' making sure that there is no danger. With an animal which has such acute hearing the slightest movement or a deeply drawn breath is apt to give the sportsman away, when the tiger would probably clear off. Most reports of tigers not returning to 'kills' actually relate to tigers which did, but which on sensing the sportsman quietly moved off without the sportsman being any the wiser.

If, however, the bait is placed near a 'Rehan', then when a 'kill' takes place there is a good chance that the tiger is lying up in that 'Rehan'. But this is by no means the invariable rule. Only too often a tiger kills a bait near a 'Rehan', but being the wary animal that it is moves off to some other 'Rehan'.

'Rehans' are not to be found all over the jungle. It needs a practised eye to recognise a 'Rehan', and it will be found that in perhaps 200 sq. miles one is lucky to find a dozen 'Rehans'. A 'kill' having occurred near a 'Rehan', one hopes the tiger to be located. Two plans are possible. The sportsman may try stalking his quarry. This is quite a feat and I doubt whether there are a dozen men alive today who have stalked successfully a tiger on foot. To pull off a successful stalk one requires all one's luck and all one's skill. The other alternative is to effect a beat and drive the tiger to the sportsman. This is something of an art.

Here we must consider the fact that a tiger is at once extremely courageous and very cautious. A child can divert a tiger from its course when this animal is not rattled or angry, but when its temper is up it will boldly charge a living wall of trained fighting elephants and scatter a thousand men. It is folly to try and beat a tiger by force in the direction it will not go. If this is tried it will break back and with unarmed beaters on foot tragedy is at hand. If the tiger is to be taken to one sportsman alone who is to shoot, not to a mere line or guns, then the entire proceeding is a very delicate one and calls for much skill and forethought. To guide the tiger to the required place two converging lines of skilled men on trees are placed. These men are known as 'stops' and it is their duty to turn a straying tiger by tapping on tree trunks. Additionally, lengths of large flags on ropes like buntings may be used to keep the tiger to the chosen route. The 'stopping' by men and flags must be done with caution as if the tiger feels he is surrounded he may break back with disaster amongst the beaters.

It is most desirable to prepare every beat in advance before bait is put out near a 'Rehan'. The preparation consists of deciding where the tiger is likely to lie up, then its probable line of retreat when beaten out, and the siting of the 'machan' from which the sportsman is to shoot. A shooting lane should be cut to give the sportsman a better field of fire, but this cutting should be in the nature of judicious thinning of the undergrowth and trees rather than preparing a cleared lane which the tiger would be apt to take in a bound. From both ends of the thinned out shooting line 'stopping' lines require to be cut right down to where the beaters are to commence beating. There ought to be also a line cut for the beaters to be deployed on, unless the beat is to commence from a jungle track, river bed, etc. 'Stops' and lengths of flags are placed on the 'stopping' line. It should previously be decided where exactly the 'stops' will be placed, and the trees to be occupied by them marked. Notes

should be kept of the number of 'stops' to be used on each flank of the beat, and also any other pertinent details. Thus when the beat is put through there is little chance of last minute mistakes which may lose the possibly only chance of the hunt to see and bag a tiger. With such careful previously made arrangements, and assuming strict silence in deploying sportsman, 'stops' and beaters, it is possible to keep the length of a tiger beat down to a few hundred yards. I have had more than one successful tiger beat a scant hundred yards in length, the tiger being out before the gun and duly dropped even before the beaters had time to move forward more than a few paces. A short beat has the advantage of there being less chance of the tiger breaking out of the beat—it is out before the gun before it even knows what is happening. If a tiger is trapped in a carefully prepared beat, the chances are 90% that it will be out before the gun. Failures in producing tigers in carefully prepared beats are due mainly to the animals not having lain up in the beat areas, but moved off earlier after killing and partly eating the baits involved. As stated earlier, this can happen often enough to make tiger shikar more than a little uncertain.

I had suggested earlier that for a 15 day shoot a dozen bait out at a time should be employed. This would imply a dozen prepared tiger beats spread over a couple of hundred square miles or more. Most of these beats would never be used for the simple reason that no 'kill' would occur in most of the beats. One would either take or lose one's chances in those beats in which 'kills' had occurred.

While the actual shooting of a tiger might be simple enough, or comparatively simple the actual hunting of this animal is an extremely delicate operation, which also calls for very considerable organisation. It is very different from the hunting of any other big-game animal in the world.

The Grey Pelican

BY

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Description:

The Grey Pelican or the Spotted Billed Pelican (*Pelicanus Philippensis*, Gmelin) is a large, greyish, stout-looking water bird. It is larger than the vulture and has a longish neck, short, stout legs and webbed feet. The long, heavy flattened bill under which hangs enormous dull purplish elastic skin bag is the most characteristic feature of the Pelican. Large blue-black spots on the upper mandible is the 'trade-mark' of this species. It is well known to the people of west Godavari and Krishna Districts under the Telugu name "Kolletiguda" or "Thithiguda".

Pelicanries in India:

Forest Officers, sportsmen and other naturalists reported from time to time that they had seen this large spectacular bird, justly famed for being able to hold more in its beak than its belly, on the Brahmaputra and in several parts of Assam right upto Bhutan border. Jerdon (1864) reported that he visited a Pelicanry in the Carnatic. W.H. Gambell (1890) mentioned that he spotted a large number of grey Pelicans in company with painted storks on neem and tamarind trees in a small village called Buchupalle in the extreme east of Cuddapah District. Rhenius (1906) and C.H. Webb-People (1944) found a small pelicanry in the village of Kondakolam in the extreme south of Tinnevely District.

In (1949) Professor K.K. Neelakantan of Trivandrum, discovered a pelicanry of considerable size in the area lying between the towns of Ganapavaram and Undi near Kollair lake in West Godavari District.

Importance of Kollair Pelicanry:

2. It is not known if any of the pelicanries reported from elsewhere in India still exist and it is very doubtful indeed. Thus the pelicanry near Kollair lake in West Godavari District assumes much greater importance as the only known major breeding ground of grey pelicans containing not less than 8000 birds. Here the pelicans were found concentrated near Kolamuru village, about three miles from "Aredu" during 1960-61.

3. Outside India, Oates (1877) described a huge pelicanry near Shwe-gyen on the Sittang River in Burma. But according to the recent observations, these immense colonies

have disappeared. Suffice to say, that the disappearance of the pelicanry from the Kollair region of our State, will be an irreparable national loss as one of the very interesting birds may disappear from our country once and for all.

Habits of the Pelican:

4. The grey pelican spends nine months in a year in the pelicanry and for the rest of the three months its movements are imperfectly known. It is believed that during the months of June to October, the species migrate to the Arctic regions of Siberia, covering a distance of over 4000 miles flying high above the Himalayas in their quest for food in the melting snows of the arctic region, with very few halts enroute. At the pelicanry, the birds arrive in September-October and leave by May-June. The nests are constructed of sticks and straw, mainly of Palmyra palms and sometimes on babul and in early December the birds lay eggs (average number of eggs per nest being three) and they are hatched by January. By the middle of January one can see in the Pelicanry the breeding of the bird in all its stages-eggs, young chicks and half grown young birds. Most of the young ones are fully fledged by April. The eggs of the pelican are dirty white and the chicks are born naked. They are covered later on by a snow-white down all over the body to be replaced subsequently by brownish-grey feathers. The pelican is renowned for its filial devotion and feeds its chicks with utmost care.

5. The pelican is a social bird and prefers to nest in compact colonies. There may be four to five and even upto thirty nests on a single tree depending on its branches.

6. The food of the pelican is fish-fresh or brackish-water-found in the Kollair Lake, canals, tanks, paddy fields, creeks and in the back-waters of the Bay of Bengal. Fishing by pelicans is a pleasing sight indeed. They do it together in a party forming a ring or semi-circle and drive the fish into shallows where they scoop them into their pouches.

7. The excreta (guano) of the birds is rich in phosphates and other chemicals, of inestimable value as fertilisers and add to the fertility of paddy fields in the area.

8. Although the pelican is a large and ugly looking bird, once it has managed to become air-borne even though after much effort and flapping, flies gracefully sailing through the air with little effort with its undercarriage of legs and webbed feet up, head held back on the shoulders and the large bill resting on the front of the neck. The birds soar into the sky in small groups and hover in the same way as vultures do. Sometimes individual birds would start to do aerobatics, perhaps, out of sheer joy.

Dangers Faced by the Pelican:

Till recently the local people looked on these birds as semi-sacred and villagers were very much averse to interfere with the nests or their inmates. Now, only a few villagers desire

to protect the birds and there is evidence of growing hostility towards the birds for reasons briefly given below.

Trees of economic importance are damaged when the Pelicans build nests on them. Considerable quantities of hay and fish are stolen by the Pelicans. The peasants entertain a baseless idea that the droppings of the bird are injurious to paddy fields. Further there is increasing demand for the eggs and the flesh of the pelicans which are sold. For this reason alone, organised slaughter of the pelicans and removal of their eggs and young have become common.

Protection and Reservation of the Pelican:

In view of the fact that the pelican breeds in considerable numbers only in the Kollair Pelicanry, immediate steps require to be taken to protect the species here. The pelican being a large bird, can be an easy target for fire arms. The eight thousand or so birds which come to this pelicanry annually can be wiped out in no time with modern fire arms if not properly protected.

The need for protecting this species is recognised both by the Union and State Governments. Steps are being taken for declaring an area of about 35 sq. miles in the Kollair lake region, bounded by the Venkayya-Weyyaru canal in the west, Ganapavaram-Pippara road in the north, Pippara-Bhimavaram canal in the east, Akividu-Undi road in the south where the pelicans nest, as a bird sanctuary (Pelicanry) and also to prohibit shooting of the bird in West Godavari and adjoining districts.

All lovers of wild life will hope that the pelicanry in Kollair lake area take its place amongst the bird sanctuaries in the country.

Custom Built Guns

By

JOHN GASELEE

Makers of British sporting guns have built themselves the enviable reputation of producing what may well be the best guns in the world. In 1600 the trade was centred round the Tower of London, and 1637 "Proof" was officially instituted—which meant that each gun had to be tested independently before being sold.

The leading gunmakers in Britain make their guns almost entirely by hand, and charge on a cost basis. Only top quality materials are used, and the greatest care is taken to see that every part of a gun fits exactly.

"Best" guns in Britain are made to measure. The reason is that no two men are alike, either in physique or eyesight. The thickness of a man's chest, the length of his neck, the size of his jaw, and the type of hands he has, are all points which have to be taken into account, as well as the vital factor of which eye is the master eye.

Allowing For The "Bend"

A gunmaker when fitting a customer for a gun, must discover whether he is right or left eyed. When the man has the gun to his shoulder, the line of the barrels and the line of sight must correspond. This means that no gun is straight. Each one has a "bend" and "cast-off" or "cast-on".

The most accurate method of getting the right "fit" is to let a man shoot with a try-gun. This is a specially built, adjustable gun, the stock of which can be lengthened or shortened and the "bend" of the gun can be altered—this is the distance by which the top of the stock drops below the line of the top of the rib.

Finally, the gun can be adjusted to give exactly the right "cast-off" or "cast-on"—which represent the distance by which the stock departs from a straight line continuing from the end of the barrels. For a right-eyed and right-handed man, the stock will be set the right (as the gun is used). This is "cast-off", and the actual amount of "cast-off" depends on the physique of the man.

"Cast-on" is the reverse process, carried out for a man who is left-eyed and left-handed. Difficulties arise for a gunmaker when a man is left-eyed, but shoots from the right shoulder. In such cases, usually he is incapable of shooting from the left shoulder. As a result, an "across-eyed" gun must be made. This is built to fit the right shoulder, but "cast-off" so that the barrels come opposite the left eye for alignment.

Fitted Like A Suit

Other points a gunfitter has to watch to ensure that when a gun is mounted it automatically beds itself on the shoulder, are that the heel of a stock may stick up, or the toe may be too low beneath the shoulder.

While every "best" gun is made to measure in the same way as a suit, often it is possible to make alterations if a man's build changes, or if a gun is bought second hand. For this the stock is usually softened either with oil or water, and bent as required.

The lump on the barrels fits into the action of the gun thereby marrying the barrels to the action. In most cases the lump is dove-tailed and brazed into the barrels, but in some cases, particularly with "best" guns, half the lump is an integral part of each tube, the two halves then being brazed together.

Hand-Made Action

The action of a gun is hand-made from a forging of metal into which the barrels are let. From this stage, the action and barrels are treated as one entity so that they shall fit perfectly. The usual method adopted to see where metal should be filed away when two surfaces meet is for one to be blacked with a lamp. Where the black is rubbed off, slight filing is necessary. This is a slow work, carried out by craftsmen.

The proof cartridge is designed to develop a pressure between 60 and 80 per cent. Greater than the higher mean service pressure. A 12-bore game cartridge has a nominal pressure of three tons per square inch (4.72 kilograms per square millimetre). The pressure of the proof load is thus in the region of five tons per square inch (7.87 kilograms per square millimetre).

After firing, the barrel is washed out and undergoes a stringent examination. If, for any reason, the proof charge appears to have affected the gun, it will not pass proof, and cannot be sold. Finally having completed all tests proof marks are stamped on the flats of the barrels and on the action.

The Engraving

On return to the factory, the gun has to be stocked. The stock is chosen from large blanks of wood. Care has to be taken to see that the stocks for a pair of guns match. These blanks are shaped by hand to the exact measurements indicated by the gunfitter. The stocker must see that the balance of the gun remains perfect. The stock is chequered by hand, and polished.



All work is done by hand



Gun-making is a fine craft



Indian swamp deer in Kanha National Park, Madhya Pradesh



Red Bear shot in the Tons (basin) Sanctuary, by someone
who should have known better.

The finishing touch to the action is the engraving. This is traditional and can, if desired, be carried out to a purchaser's specification. Engraving is a highly skilled work done by men who prefer to work on their own.

In the making of a "best" gun, then, 20 or 30 different men, each a specialist in his own field, may be involved.

(31A163).

Reviews:

The Wild Life of India:

By

E.P. GEE, (Collins):

There have been good books on wild life before; only last time we reviewed Pat Stracey's *Elephant Gold* as an example. But never before has there been such a book on Indian wild life as this.

This result of thirty years of enthusiastic amateur work in the field, Mr. Gee's effort breaks new ground with every chapter, even though most of them have already appeared in various newspapers.

Apart from the magnificent photographs in colour and black-and-white, (there are 21 of the former and 92 of the latter), and the warmth and sincerity that pervade the book, it is full of valuable 'firsts'. Mr E.P. Gee, who is one of the Wild Life Society's most active and valued members (he is Senior Vice President of the North-eastern branch of the Society), is learned in animal lore and a member of the Executive of the Indian Board for Wild Life since its inception. He has used all his known expertise to produce what will remain for long a source book on Indian wild life.

Besides the usual chapters on tiger and other animals that might be found elsewhere, there is much unpublished material on the rhinoceros, the wild ass of Kutch, the Golden Langur, and an account of a fascinating search after the Hispid Hare.

Lively anecdotes brighten the theme, like the oft-quoted one about the old-time pucca Forest Officer, E.O. Shebbeare, as distinguished for his hunting, forestry and mountaineering,

as for his disdain of frills by way of clothes. He spent all his forest service days, it is said, wearing khaki shorts and shirt, with brown canvas shoes innocent of sox. One day the Governor came visiting, and Shebbeare was seen in the usual outfit, plus a pair of sox. To enquiries for this sudden display of respectability, he is said to have replied: 'Oh, that ! One must cut a bit of dash on these occasions, you know'. Do our contemporary foresters stand comparison ?

We feel compelled to add a note of discord by recording the fact that we do not agree with several of Mr. Gee's views. For instance, he says that 'cheetal' stags and hinds do not separate during certain seasons, whereas we have always seen companies of stags living, moving and having their being entirely in 'stag' parties during certain 'spring' months. Nor do we wholly approve the somewhat supercilious attitude to Indian 'wildlifers' that expresses itself in his writings; we could point out several superficialities, like his cursory note on the Kansrao Sanctuary, on the basis, we happen to know, of a one-hour drive on the forest road in a jeep; but all this would be carping.

The fact remains that here, at last, is a book by an Indian 'wildlifeman' about wild life in India, which has very few defects and very many outstanding virtues; it is an absolute 'must' for the bookshelf of anyone even vaguely interested in sport, conservation, nature or life.

This is the jungle: Kenneth Anderson (Allen & Unwin)

Man-eater yarns are common stuff now, ever since the early days of Tsvao's lions and Corbett's tigers. Mr. Anderson himself has written no less than five, and then added this wholly unnecessary and discursive potboiler. We cannot appreciate its lack of style and restraint, its obvious pondering to sensational sentiments, its poor natural history or its typographical and printing errors.

We have read with interest and even mild enthusiasm Mr. Anderson's earlier books, but when he can confuse rabbits with hares, and give us unverified details in language that is at best mediocre narrative, then we feel he is approaching too close to the genre of the current-day standard of work which we so often condemn. Such literature does not instruct or elevate, and we are not amused !

Correspondence

LET RIGHT BE DONE

Sir,

I wish to bring to your notice an interesting case-history. Four years ago, I was out shooting in a block in the Himalayan terai. Just before the hour of dusk, but within the forty five minute period after sunset permitted, one of my guests and I had a shot each at a panther with our heavy rifles, at a range of some ten yards.

The panther grunted, but was evidently hit in the lower lung and managed to bound up the hill from the road, where we had walked him down by his tracks, after having seen him earlier in company with his mate.

We searched in the tall grass up the hill for half an hour before complete darkness prevented further trailing. The rest house of the adjoining block had two shikar parties staying in it, and we felt it our duty to inform them that a severely wounded panther was in the vicinity of their bungalow. We did so, had tea with some friends in one party, and returned to our own rest house five miles away.

Early the next morning we were back, and by six-thirty a.m. we had managed to trail the panther to the end, where he had tried to negotiate a steep grass cliff and fallen over, leaving a piece of lung and much blood on a horizontal tree in the way. The panther had fallen on to a forest road and on descending to this we discovered that all traces of the clotted blood and the tracks had been dusted over by evidently human agency. Digging below, we found clots of blood and the dead panther's excreta. A little further we saw the tracks of a jeep that had come in the night, presumably, and removed the animal's carcass and then gone away from where it had come.

We went to the camp of the Wild Life Warden some twenty miles away since the rest house occupants said they knew nothing of it. The Wild Life Warden heard our story and assured us we need worry no more. However, we insisted that he send his 'ranger' or 'guard' with us to verify it. He did.

The 'guard' or 'ranger', I don't know his rank, came with us, but declined to climb the hill, saying he was convinced.

A fortnight later we received a letter from the Assistant Wild Life Warden, accusing us of having left a wounded panther behind, and of having wounded it 'at night', 'with lights', 'from a car' and 'with a shotgun'.

This incensed us and we made enquiries and found out that the dead panther had been given to a taxidermist of our acquaintance by one of the shikar parties in the rest house as their own 'bag'. Also, that this party were close friends of the Assistant Wild Life Warden; in view of our own somewhat impolite encounter with them the morning after the panther was shot, the story became clearer.

We wrote a strong note to the Chief Wild Life Warden complaining against the Assistant Wild Life Warden's unfairness in wrongfully accusing us.

The sequel to this was a case against us, which we lost after several months of litigation. Feeling wronged, we appealed to a higher court and now recently the verdict has been reversed and the truth has prevailed. The Assistant Wild Life Warden's charge has been proved false and prevaricated.

At a private meeting with the said Assistant Warden, he confessed that it had been a 'framed' charge, the result of our complaint against the 'guard' and later the Warden.

Yours etc.

Satisfied.

Sir,

I have read with interest the April issue of your Journal and feel that I must draw your attention to two points:—

(1) On page 20, you say that the panther and leopard are identical (as they are), but then go on to refer to differences of size and colour?

(2) On page 38 is the first of a series 'For the Wildfowler' and reference is made to the Spot-billed Ducks of India. The name 'Spotbill' is not derived from the yellow tip of the bill but from the two red spots at the base. The Chinese and Burmese races do not have these spots and their name changes to Grey Duck.

Again, the Chinese and Burmese forms (not species) are extremely rare in India, there being only one record of the former from Indian limits. The diagnostic characters for the three races are hardly such as can be told in the field and few would care to try to do so. If birds obtained in Assam are thought to be *zonorhyncha*, the chances are that they are young birds which have not yet developed the red spots on the bill.

This letter is not meant for publication and I hope you will not take it amiss. I am aware that it is extremely difficult to get suitable articles on natural history and shikar and

am only drawing your attention, if it is necessary, to the great need for assuring that errors of this kind are avoided as far as possible.

Yours

(Humayun Abdulali).

[We are very grateful to our correspondent for pointing out our contributor's error. As mentioned before, we realise that the panther and the leopard are identical but the vast variations in size and colouration make some sort of Empirical differentiation necessary.—Editor.]

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Dandakaranya

Sir,

Let me give you a *brief report* on the conditions of wild-life in the Dandakaranya area of Orrisa:—

Before the start of the project, that area had some of the best forests (of sal, teak and other trees) in India, with a dense population of wild-life. Most of these jungles were almost virgin. Now, before the actual forest clearance programme, some people were set free in the forests with jeeps, spotlight and plenty of petrol, in order to clear the areas of all "dangerous animals". This led to the usual mass slaughter. Then the reclamation department was ordered to move in with their tractors and bull-dozers. At this stage all shooting was prohibited (one of the reasons for this was that the then Chief Administrator of the Project, Mr. L.J. Johnson was an ardent sportsman, with very strong ideas about shooting). But during the reclamation programme, many animals were killed because of the method of felling trees by dragging a large steel ball with chains and tractors. Again, most of the trees felled by the tractors were left to lie and was later set fire to (at times you could see acres of timber blazing away merrily). The ultimate means of destruction of wild life were the "project-shikaris", who were employed to protect the staff from "dangerous animals" and were given guns and ammunition. So the nett effect, the working of the project has had on the wild-life, is that all the deer, pigs, and birds have left the areas for good. The only remnants are leopards (who are gradually being killed off by the project-shikaris, more so because of the ready market for the pet), and an occasional bear. I was most surprised by the complete absence of all bird-life, except for a few doves. In many of the heavily poached areas of Bihar, I have found that the animals have been able to adapt themselves to the changing conditions. But in Dandakaranya, I think that the animals (those not shot off) have made a mass migration to quieter spots, because they are used to staying in virgin forests. I cannot afford any other explanation for the complete lack of fauna in the area. I think the Orrisa Government should be cautioned at this stage about

irresponsible destruction of fauna and flora, and the need to take the forests more into consideration during the implementation of these "development programmes". Does our society have any people to talk with the Orrisa-forest-department? If you ask me, I think that forest-depart (i.e. of the State of Orissa) is the most disorganised and callous of all the States.

I think I will terminate my letter here. I will be looking forward to your reply, and to the copy of '63 "Cheetal" which you have posted to me. Thanking you for the previous reply, I remain,

Yours etc.
M.K. Munshi.

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The Indian Board for Wild Life

Sir,

What the Planning Commission is to the future of India, the Indian Board for Wild Life should ideally be for the future of Indian wild life. Unfortunately, as the recent meeting of the Board demonstrated, not only are the powers of the Board so hamstrung as to render it ineffective, not only are its valuable recommendations not implemented, but also, and this is the worst sign of the times, the Board is falling into the decadent post-1947 rut of making necessity a convenience by contenting itself with passing tame and harmless resolutions like the one passed in August. The Board adjourned its meeting with a resolution calling upon the State Governments to 'take early steps to encourage the preservation of wild life. Like asking a Noble of the 'ancien regime' in France to be kind to his tenants'!

As for the Government, which alone can strengthen the Board so as to give 'punch' to its policies, well, need we say anything. Nothing at all has been done. The International Union for the Conservation of Nature does not know what is happening in India because no Indian has ever been to one of their meetings. And when the Government does decide to send someone, we can be quite sure it will be some picked 'son-in-law' with the Establishment virtues of the current Government: indifference to wild life, love of going 'abroad', complete ignorance, incompetence, good relations with some minister or other etc. etc.

Why not scrap the Board altogether? They never do anything anyway!

Yours etc.

Captain C.N. Rana, (Retd.)

Madhya Pradesh.

(We agree with much of what Captain Rana says, but we do think he is a bit immoderate in his judgements. The Board has done much good work. The Government is what it is, and there is much good-will even there.....Ed.)

Elephants :

(Since we keep getting masses of correspondence and enquiries on this subject from our readers, we feel we should explain here why our information is so sketchy about statistics regarding elephant-shooting and related topics: the following letter from one of our staff clarifies the probable causes.....Ed.)

Sir,

On behalf of our Editor, I wrote to the Divisional Forest Officer of Dehra Dun requesting full information on the number of licences issued and the returns by way of elephants destroyed etc. Since there had been two cases brought to my knowledge by my 'shikaris' men trampled down by one wounded elephant, and since there were false rumours rife which exaggerated these two instances, I felt it would be a good idea to publish the facts as known fully only to the Administration responsible.

After some time I received a letter from the D.F.O. saying that I should "kindly contact the District Magistrate, Dehra Dun on the subject".

Somewhat puzzled at the secrecy, I did. After somewhat longer time, I received this worthy administrator's response which runs: "With reference to your letter.....this is to inform you that the required information may please be obtained from the State Government".

Now we were fully perplexed at the hush-hush nature of our mission; duly impressed, we wrote to the State Government.

Their response, after some months, is still awaited.

Yours etc.

Enquirer.

(Subsequent to the receipt of the above, we have come across this official report appearing in the Press.....Ed.)

U.P. Shikaris kill 28 Elephants

From Our Correspondent

During October, 1963, and June, 1964, 28 wild elephants were shot and killed in the districts of Naini Tal, Dehra Dun and Bijnor by professional shikaris.

The district magistrate had issued special permits to them in pursuance of the Government's decision to reduce their number through "selective shooting".

Since 1947, there had been persistent complaints of depredations by wild elephants. The Government's intention was not to destroy them completely, but to control their population, which has swelled to about 1,200 from 250 in the course of the last 85 years so that it should not exceed the annual growth.

For killing one elephant, a shikari gets a cash reward of Rs. 200. He is also permitted to keep the ivory of the tusker, if he kills two female elephants.

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T.A. Tobit,

Indian Airlines House,

Gurdwara Rekabganj Road,

New Delhi.

Sir,

I have read with interest and no little concern the reports, articles and letters appearing in the "Statesman" on wild elephants in Dehra Dun District and what should be done to them. I am writing to add my support, however small, to the views expressed by well known authorities in defence of the creatures and on the cruelty and dangers inherent in permitting their attempted destruction by anyone except the most experienced (and proven) of elephant hunters. Even if their destruction by such hunters should become necessary it should be conducted humanely and confined to "rogues" and other dangerous individual animals whose identity as such has been established. I have been visiting the Dehra Dun jungles till quite recently and while I have known that elephants do visit these I have never heard of them being a menace; therefore I am not convinced that their numbers and the threat they pose to humanity have increased so suddenly and become so widespread in the District as to warrant their wholesale destruction. In any case the hunting of elephants by all and sundry using various types of weapons should not be encouraged. As already pointed out, it would be cruel and dangerous. And I am not thinking so much of the danger to the hunter as to the population around who would be exposed to the fury of wound maddened elephants. Further, of course, in the wake of such an elephant hunting spree, would follow the slaughter of other wild life. And surely what applies to Indian Nationals should in this respect apply equally to visitors from abroad who generally go in search of sport and trophy with the assistance and guidance of Shikar Agencies in the name of foreign exchange. There are certain things which cannot be compensated for by any amount of foreign exchange. And this is one.

Of course, the foregoing must not be taken to preclude the destruction by anyone and by any means of an animal (whether an elephant or any other) which presents an immediate threat to human life or sufficiently considerable property and there is no other apparent means of overcoming it. I believe the laws already provide adequately for such cases.

Authorities on the subject have already explained the actions and behaviour of elephants; both of individuals and herds. They have also pointed out how they are being disturbed, driven out and hounded from their ancestral domain by the encroachments of man. The next step would appear to be to "Give the dog a bad name and hang him". This is in spite of the formation of sanctuaries because even there the largest and more shy creatures cannot lead their natural undisturbed lives. If the warning of these authorities is ignored surely man will have acquired what he seems bent upon but at an irretrievable cost; the extinction of the wonderful wild elephant and many other wonderful creatures. But must it be so? Can we not find an alternative or even sacrifice something to preserve a rare and enviable heritage? Must we continue to level the few remaining jungles and to scar natural scenes originally so full of beauty and grandeur?

The Himalayas are not only a solid bulwark. They are the nurseries of our largest rivers. Clothed in forest from the foot-hills upwards they are a natural sanctuary for our wild life. So far difficult to approach, they have remained magnificent in their primitive natural beauty generally untouched by the inroads of modern humanity. Must these also be denuded and scarred to provide factories and farms? And must we take away from them the wild life they have nurtured? Surely the answer must be "No". We should treat these hills as Nature's own which have been gifted to us and not desecrate them with thumping machines and sprawling factories. I do hope the authorities concerned will be persuaded to consider this with understanding and sympathy and keep such things away in an environment more suited to them.

When I read of the hunting of wild elephants being thrown open I had understood that some people had been killed and others injured by these animals. Details of the attacks were not given in the article. It has intrigued me in that I have not come across any news item of such attacks since then. I wonder if you could kindly enlighten me as to whether such attacks have in fact occurred and been established. I am also interested to know the number of such attacks, the number of fatalities and the localities in which they have occurred. I am sure you will appreciate the need to sift established facts from hear-say and rumour because the latter can lead to a good deal of mischief.

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Sir,

The elephant is the monarch of the forest, and one of Nature's monuments. When he ruins the crops in a new clearing he does so in what he regards as his own territory. He is only in search of food and has no evil designs on humans. Why then should it be necessary to shoot a magnificent tusker of perhaps 100 years growth merely because he has trampled a paddy field of only a few months' growth? The paddy is replaceable but not the elephant.

Yes, yes, I know you will say that man's needs are paramount. But is there no other way? What about planting a few acres of DECOY paddy along the fringes of new cultivations at those spots where the animals are known to enter. These plots could be financed by a sort of co-operative movement or even a Govt. subsidy, they could be sprinkled with corn or banana trees or any crop which provides an attractive scent to lure the animals to the spot. They could be roughly or rather, crudely-fenced but only for the purpose of carrying a trip wire along the top so that the trip wire could be connected to home made bombs—perhaps a couple to each plot—in such a way that any major disturbance of the wire would set off the bombs. Then the gentleman in question would not be likely to forget where man's frontier lies.

If after all it has been decided to destroy the animal, why is it necessary to kill him piecemeal—one shot in the brain (which may miss the vital spot), then one through the ear, another in the eye by which time he is a horrible sight. If he still twitches, this will be followed by one through the lungs I suppose and another through the heart. The only shot, it would seem, that one has overlooked is one up the ———— for indeed one have already inflicted so many indignities on this most dignified of all creatures that one more or less would not matter!

I have heard that before operating on a fierce animal in a zoo they sometimes fire a pellet into him containing an anaesthetic? Could not you do this with a wild animal and then finish him off decently and painlessly while he is asleep?

Of course, there would be organisational problems—for instance at what centres should stocks of these pellets be held, and in whose charge—but surely a way would be found.

Sir,

Some of your readers may not have heard of the sad passing away of Dr. Olaus J. Murie, author of the classic study of Red Deer in North America, and long-time doyen of wild life and nature lovers the world over.

I give below some excerpts from a letter of his wife, Mrs. Margaret Murie:

"He was so deeply concerned with the continuing education of the people as to the natural values of our world and was much interested in the young people of the world. The only hope, he used to say, for a more perceptive and happier life for all is the fixing of this idea in the minds of the young."

'To this end', continues Mrs. Murie, 'he would have been very pleased with your (The Wild Life Society's) ideas and your work.'

It is sad we could not make contact with Dr. Murie while he was alive. We can, however, learn from his dedicated vision of the values which he sought to preserve.

Yours etc,

Hari Dang,

The Doon School.

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Sir,

We read a report in the Statesman of June 30 of the shooting of the so-called 'Dhanora Man-Eater' by Abdul Aziz Khan, an Assistant Commandant of the SAF of Madhya Pradesh. He was called all the way from Assam for the job and is reported as having shot several tigers in the Maria Gond areas of M.P. with his .30.06 Springfield rifle.

Apart from the minor fact that this rifle is illegal for the shooting of carnivorae in certain states, I would like to ask many questions of the authorities who invited the gentleman from a thousand miles away instead of publishing facts and figures in the official gazettes, and inviting sportsmen from Madhya Pradesh itself to shoot the alleged 'man-eater(s)'.

The fact is that one of every three tigers in this area are said to have a taste for occasional man-eating; secondly, how does Mr. Khan claim conviction that the animal he shot was the man-eater, because even now, in the same area, human kills are being reported.

In this it seems best that the Departments concerned should go back to the old practice of publishing man-eaters in the gazettes and inviting local sportsmen to shoot them.

Yours etc.

M.P. Singh,

Nagpur.

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Sir,

It seems strange and anomalous to me that the country's Wild Life Week should coincide with the opening of the shooting season in the month of October. This shows immense ignorance on the part of our Government about wild life.

Yours etc.

Mukul Chatterjee.

(We feel compelled to disagree here; the authorities, as we keep repeating ad exasperatum, in India may know next to nothing about their work in this department, but in this case we can see nothing incompatible between wild life preservation and the shooting season. They are, in fact, complimentary, and you can't have the one without the other. Sound shooting conventions are the best safeguard against poaching. The timings are excellent, if unpremeditated.....Editor).

पक्षियों की पुकारें और मानव की व्याख्या

यह सत्य है कि पक्षियों की भी भाषा है, जिसके माध्यम से वे अपने विचार अथवा वाह्य वातावरण के प्रति प्रतिक्रियाएँ एक दूसरे तक पहुंचाते हैं और एक दूसरे को समझते हैं। यह बात एक ही कुल के पक्षियों के लिए विशेषतया सत्य है, परन्तु वैज्ञानिक तथ्य यह है कि पक्षियों की भाषा में वैसी बोलचाल (स्पीच) नहीं होती है जैसा कि बहुत से लोग समझते हैं। पक्षियों की भाषा में केवल साधारण बोली (साउंड) तथा क्रियाएँ होती हैं और इनके माध्यम से पक्षी, विशेषतया मिलनसार पक्षी आपस में नाता बनाए रखते हैं; और प्रसन्नता, आमन्त्रण, धमकी, शंका, भय इत्यादि भावनाओं की साधारण प्रतिक्रियाओं को एक पक्षी से दूसरे पक्षी तक पहुँचाते हैं। यह सिद्ध हो चुका है कि पक्षी के मस्तिष्क तो होता है परन्तु उसका मानसिक स्तर इतना नीचा है कि उससे इस बात की आशा नहीं की जा सकती है कि पक्षी आपस में वार्तालाप कर सकें अथवा मनुष्यों की भांति विचार-विमर्श कर सकें। परन्तु चिरकाल से मानव ने पक्षियों की मधुर बोली को तन्मयता से सुना है और उनके सौंदर्य से प्रभावित हुआ है। यह कम आश्चर्य की बात नहीं है कि मानव ने अनुभव किया कि कुछ पक्षियों की पुकारें (काल्स) मानव की भाषा में अर्थ रखती हैं और उनकी भावनाएँ समझी जा सकती हैं। केवल भारत में ही नहीं वरन समस्त विश्व में साहित्यकों तथा कलाकारों ने कुछ पक्षियों, जैसे चकवा, कोयल, मोर इत्यादि की पुकारों में मानवीय भावनाओं तथा आवेगों को खोजा और उनको मानवी भाषा में व्यक्त करने का सफल प्रयास किया, तथा उनकी पुकारों की प्रेरणा से अनन्य भावपूर्ण रचनाएँ कीं। कुछ भारतीय पक्षियों, जिनका विवरण नीचे दिया गया है, की पुकारें ऐसी हैं जिनकी व्याख्या एक अथवा एक से अधिक मानवीय

भाषाओं में की जा सकती है और ऐसा प्रतीत होता है कि वे सार्थ तथा समझने योग्य बातें कह रहे हों। कुछ पक्षियों, जैसे काला तीतर तथा पपीहा, की पुकारों का अर्थ कई भाषाओं में निकलता है, मानो वे कई भाषाओं के ज्ञाता हों।

मोर को कौन नहीं जानता। यह भारत का राष्ट्रीय पक्षी है। मोर (*Pava cristatus*), Gallinae आर्डर के Phasianidae परिवार की सुविख्यात प्रजाति है। इसका प्रणय-नृत्य प्रसिद्ध है। इसकी पुकार दुन्दुभी की भांति तीक्ष्ण होती है। इसकी पुकार 'म्याऊ' है। ऐसा कहा जाता है कि यह वास्तव में 'मेह-आओ' पुकारता है और कौतुहल की बात है कि वर्षा-ऋतु आने पर यह विशेषकर अधिक पुकारें लगाता है।

काला तीतर अथवा 'दि ब्लैक पाट्रिज' (*Francocinus francolinus*) भी उपरोक्त परिवार की एक प्रजाति है। प्राचीन काल से यह उत्तरी भारत का प्रसिद्ध शिकार का पक्षी रहा है। इसकी पुकार सुप्रसिद्ध 'सुभान-तेरी-कुदरत' है। इस पुकार से सम्बन्धित एक कहानी भी है। कहा जाता है कि एक बार एक ब्राह्मण, एक मुसलमान तथा एक बनिया साथ-साथ जंगल में चले जा रहे थे कि इतने में काले तीतर ने पुकार लगाई। तीनों व्यक्ति एक दूसरे से पूछने लगे कि तीतर क्या कह रहा है। ब्राह्मण ने कहा कि वह 'सीता-राम-दशरथ' कह रहा है और मुसलमान ने कहा कि वह 'सुभान-तेरी-कुदरत' कह रहा है। बनिये ने कहा कि तुम दोनों भूटे हो, वास्तव में तीतर 'नून-तेल-अदरक' कह रहा है।

चितकबरा अथवा दि पेन्टड पाट्रिज (*Francolinus pictus*) की पुकार भी काला तीतर की भांति होती है।

बटेर अथवा 'दी ग्रे क्वेल' (*Caturnix caturnix*) भारत की एक सुप्रसिद्ध चिड़िया है। मुस्लिम काल में इसे लोग लड़ाने के लिए पालते थे और पाली बदते थे। अभी भी कहीं-कहीं ये पाली जाती हैं। इसके शिकार में बहुत आनन्द आता है और इसका मांस अत्यन्त स्वादिष्ट और पौष्टिक होता है। इसकी (नर की) पुकार अत्यन्त तरल 'wit-me-lips' है।

आर्डर Coccoyges के परिवार Cuculidae को उदाहरण के रूप में लीजिये। छोटी कुक्कू अथवा 'दी लिटिल कुक्कू' (*Cuculus poliocephalus*) अन्य कुक्कू पक्षियों से छोटी होती है। इसका स्वर काफी अनोखा है और यह अपनी पुकार में कहती है 'that's your smoky paper' (वह आपका धुएँदार कागज है)। कामन हाक-कुक्कू (*Hierococcyx varius*) को भारत में, विशेषकर उत्तर प्रदेश में, पपीहा के नाम से खूब जानते हैं। अंग्रेजी में इसे ब्रेन-फीवर बर्ड भी कहते हैं क्योंकि इसकी पुकार 'ब्रेन-फीवर, ब्रेन-फीवर' (मस्तिष्क का ज्वर) शब्दों से मिलती-जुलती होती है जिसको यह बारम्बार उच्च स्वर में दिन और रात कहता रहता है और जिसको सुनते-सुनते मनुष्य के सिर में दर्द होने लगता है। इसकी एक पुकार 'Oh, lor, ho, lor, how very hot it's getting—we feel it, we feel it, we feel it' भी है। यों तो पपीहा वर्ष भर पुकारता है परन्तु बसन्त ऋतु के प्रारम्भ से वर्षा-ऋतु के अन्त तक पुकार का स्वर उच्च रहता है और यह विशेष रूप से बार-बार दोहराई जाती है। हिन्दी साहित्य में पपीहा से सम्बन्धित अनेक रचनाएँ हैं तथा कवियों ने इसका सन्दर्भ अनन्य कविताओं में दिया है। एक फिल्म का गीत है 'पापी पपीहा रे,

पिउ-पिउ न बोल बैरी, पिउ-पिउ न बोल'। यह अत्यन्त दिलचस्प बात है कि हिन्दी प्रेमी कहते हैं कि पपीहा कहता है, 'पी—कहाँ?' (अर्थात् मेरा प्रेमी कहाँ है?) और मराठी प्रेमी कहते हैं कि पपीहा कहता है, 'पाउस-आला' (अर्थात् पानी आ रहा है)।

पपीहा से मिलती-जुलती भारतीय कुक्कू अथवा 'दि इंडियन कुक्कू' (*Cuculus micropterus*) है। विशेष अन्तर केवल इतना है कि भारतीय कुक्कू की दुम तक एक चौड़ा काला पट्टा होता है जो पपीहा में नहीं होता है। इसकी पुकार विशिष्ट है और चार अक्षर समुदाय की होती है जिसका विभिन्न प्रकार से वर्णन किया गया है, जैसे 'कायफल-पक्का', 'orange-pekeo', 'kithh-toppan' अथवा 'crossword-puzzle' यह भी पपीहा की भाँति एक अथवा डेढ़ घन्टे तक लगातार उच्च स्वर में पुकारती रहती है, फिर थोड़ी देर के पश्चात् पुकारने लगती है। इसकी पुकार दिन भर और रात में भी विशेषकर चांदनी रात्रि में भी काफी दूर से सुनी जा सकती है। इसी परिवार की एक दूसरी कुक्कू है जिसका नाम 'भारतीय शोकाकुल कुक्कू' अथवा 'दि इन्डियन प्लेन्टिव कुक्कू' (*Cacomantis merulinus*) है। इसकी पुकार साधारणतया स्पष्ट, उच्च, करुणात्मक सीटी 'ca-weer' होती है परन्तु विभिन्न चित्तवृत्तियों में यह विभिन्न स्वरों से भी पुकारती है और ऐसा ही एक करुण स्वर-समुदाय है 'यह-चलते-राही' जो प्रायः सुना जा सकता है।

नौरंग अथवा 'दि इन्डियन पिट्टा' (*Pitta brachyura*) को भी सुनिये। वह सिर और कंधों को पीछे फेंक कर, सीने को शान के साथ फुलाकर और चोंच आकाश की ओर करके स्पष्ट उच्च स्वर में चिल्लाता है 'wheet-pe-u' अथवा 'pea-to-you' जो अत्यन्त मधुर लगता है। नौरंग, आर्डर Passeres के परिवार Pittodae की प्रजाति है।

हिमालयी बसंथा (*Megalaema virens*) अथवा 'दि ग्रेट हिमालयन बाबेंट' एक अत्यन्त दिलचस्प पक्षी है। यह किसी घने छायादार वृक्ष की ऊँची डाल पर बैठता है और फिर एक लय उदास स्वर से बारम्बार चिल्लाता है 'peeee-oh' अथवा 'mee-oh' अथवा 'phillo', जो कि लगभग आधे मील की दूरी से सुना जा सकता है। पर्वतीय क्षेत्रों में रहने वाले स्थानीय लोगों में एक धारणा है कि हिमालयी बसंथा में एक ऐसे प्रेमी की आत्मा है जिसके साथ अन्याय किया गया था और उसे अपनी प्रेमिका से नहीं मिलने दिया गया था और इसी अन्याय के दुःख में उसने अपने प्राण तड़प-तड़प कर त्याग दिये। और अब वह हिमालयी बसंथा के भेष में अपनी फरियाद अनन्त को 'उन-नी-आओ, उन-नी-आओ' अर्थात् अन्याय, 'अन्याय' पुकार कर सुना रहा है। यह बसंथा, आर्डर Pici के परिवार Capitonidae की प्रजाति है।

ब्राह्मनी डक (*Casarca ferruginea*) को हिन्दी में चकवा-चकवी और उर्दू में सुरखाब कहते हैं। ये अत्यन्त सुन्दर पक्षी हैं। ये बड़ी नदियों के किनारे जहाँ जल स्वच्छ होता है और किनारे पर रेत होती है और प्रायः नदी के अन्दर टीलें होती हैं, जोड़े में रहती हैं। दिन में नर तथा मादा साथ-साथ बैठकर अथवा खड़े होकर आराम करते हैं और रात में भोजन करते हैं। भोजन में ये घोंघे, वनस्पति, सीपी, जल के कीड़े, मछली, छोटे रेंगने वाले जन्तु इत्यादि खाते हैं। कभी-कभी ऐसा होता है कि भोजन की तलाश करते हुए नर तथा मादा एक दूसरे से बिछड़ जाते हैं। इसी बात को लेकर किंवदन्ती बन गई है कि चकवा-चकवी में

ऐसे दो प्रेमियों की आत्मायें अवस्थित हैं जिनको यह शाप दिया गया था कि वे एक दूसरे को देख सकेंगे, एक दूसरे की बात सुन सकेंगे परन्तु बहती हुई धारा के कारण एक दूसरे से मिल नहीं सकेंगे और शाप वश विरह में जलते रहेंगे। चकवा-चकवी की साधारण पुकार मधुर कोमल 'अ-ओंक' है। किवदन्ती के अनुरूप लोगों ने इस पुकार की भी अत्यन्त विचित्र व्याख्या की है और वे कहते हैं कि चकवी कहती है, 'चकवा-आऊं-क्या?' और चकवा शाप के वश दुःखित स्वर में उत्तर देता है, 'चकवी-ना-आओ', 'चकवी-ना-आओ'।

भारत की सामान्य जंगली बत्खों में से एक बत्ख भूरे रंग की बृहत्सलिग टील (*Dendrocygna javanica*) है जिसकी पुकार शब्दों के साथ श्वांस निकालता हुआ स्वर समुदाय 'sea-sick' है। यह पुकार विशेषकर उड़ते समय की जाती है। यह टील तथा ब्राह्मणी डक आर्डर *Anseres* के परिवार *Anatidae* की प्रजातियां हैं।

टिटहरी अथवा 'दि रेड वाटिल्ड लैपविंग' (*Lobivanellus indicus*) एक प्रसिद्ध पक्षी है। यह खुले हुए खेतों में तथा झील, नदी और तालाबों के आसपास रहना पसन्द करता है। ये बहुधा जोड़े में रहते हैं। यद्यपि इस पक्षी की साधारण पुकार 'पिंग' के प्रकार की है परन्तु यदि इसको छेड़ा जाये अथवा इसका पीछा किया जाये तो यह थोड़ी दूर दौड़कर उड़ता है और उड़ते समय कर्कश स्वर में चिल्लाता है, 'did-he-do-it?' अथवा 'pity-to-do-it.' टिटहरी आर्डर *Limicolae* के परिवार *Charadriidae* की प्रजाति है।

छोटा बसंथा अथवा 'दि क्रिमसन ब्रेस्टिड बाबैट' (*Xantholaema haemacephala*) को अंग्रेजी में 'कापरस्मिथ' (ठठरा) भी कहते हैं। इसका कारण यह है कि इसकी पुकार 'ठुक-ठुक, ठुक-ठुक' है। जिसे यह किसी ऊँचे वृक्ष की चोटी या ऊँची डाल पर बैठा ऊँचे स्वर में एकरस कहता रहता है। यह 'ठुक-ठुक' दिन भर प्रति एक या दो सेकिन्ड के अन्तर पर घंटों होती रहती है। और दूर से ऐसा प्रतीत होता है जैसे कोई ठठरा दूर स्थान पर बर्तन बना रहा हो। छोटा बसंथा हिमालयी बसंथा के परिवार का ही है।

भारत में दो पक्षी बहुत प्रत्यक्ष हैं—प्रथम देसी कौवा और द्वितीय देसी मैना। देसी मैना (*Acridotheres tristis*) उन पक्षियों में से एक है जो मनुष्य के साथ और आसपास रहते हैं। यदि कहीं नवीन आबादी बसे तो देसी कौवा और देसी मैना वहां तुरन्त पहुंच जायेंगे। हम लोग देसी मैना से भली-भाँति परिचित हैं और यह हमारे घरों, बागों, बाजारों इत्यादि स्थानों में खूब शोर मचाती है। इसकी कई तीव्र पुकारें तथा चहचहाटें हैं, जैसे 'कीक-कीक-कीक, कीक-कीक-कीक, चुर-चुर' इत्यादि। परन्तु कभी-कभी यह उच्च फटकारते हुए शब्द से पुकारती है 'रेडियो-रेडियो-रेडियो'। देसी मैना, आर्डर *Passeres* के परिवार *Sturnidae* की प्रजाति है।

अब आर्डर *Columbae* के परिवार *Columbidae* पर दृष्टिपात करें। कोकला अथवा 'दि कोकका ग्रीन पीजियन' (*Sphenocercus spenurus*) हिमालय के वनों में पाई जाने वाली एक सुन्दर प्रजाति है इसकी पुकार मधुर, कर्णप्रिय परन्तु थोड़ा करकराहट युक्त सीटी सी होती है। इसकी पुकार की व्याख्या की गई है 'why, we what cheer; what are we waiting for?' इसी प्रकार की एक दिलचस्प व्याख्या है। श्वेतकपोली बुलबुल के पुकार की, जो एक जिन्दादिल और खुशमिजाज चिड़िया है और

जो दिन भर एक भाड़ी से दूसरी भाड़ी पर अथवा एक वृक्ष से दूसरे वृक्ष पर फुदकती और उड़ती फिरती है और प्रसन्न स्वर में पुकारती है, 'Quick-a drink with you.' यह बुलबुल (*Molpastes levcogenys*), आर्डर Passeres के Pycnonotidae परिवार की प्रजाति है जिसे अंग्रेजी में 'दि व्हाइट चीकिड बुलबुल' कहते हैं। कोकला परिवार की तीन अन्य दिलचस्प प्रजातियाँ चिट्टा फास्ता अथवा 'दि स्पाटिड डव' (*Streptopelia chinensis*), छोटी फास्ता अथवा 'दि लिटिल ब्राउन डव' (*Streptopelia senegalensis*) तथा डोर फास्ता अथवा 'दि इन्डियन रिंग डव' (*Streptopelia risoria*) हैं जो भारत के सुपरिचित पक्षी हैं। चिट्टा फास्ता उत्तरी भारत के मैदानी भागों में पाई जाती है। इसकी पुकार कोमल तीन स्वर—समुदाय की 'कुऊ' होती है, जिसकी व्याख्या प्रायः 'एक-ही-तू' की जाती है। छोटी फास्ता एक छोटी सुन्दर फास्ता है जिसकी पुकार थोड़ी कर्कश 'कूऊ, कू-इ-इ-इ-इ' है परन्तु प्रायः कहा जाता है कि फास्ता ईश्वर को याद कर रही है और पुकार रही है 'एक ही तू, एक ही तू,.....।' डोर फास्ता जो फास्ताओं में सबसे अधिक पाई जाती है, स्वप्निल स्वर में पुकारती है 'how-do-do' और यह पुकार ग्रीष्म-ऋतु में अधिक होती है।

आर्डर Passeres की अन्य दिलचस्प प्रजातियाँ धब्बेदार गुपिल अथवा 'दि स्पाटिड बैबलर' (*Pellorneum ruficeps* परिवार Timaliidae), फुदकी अथवा 'दि टेलर बर्ड' (*Orthomus sutorius*—family Sylviidae), तथा Corvidae परिवार के कृशकट अथवा 'दी ट्री पाइ' (*Dendrocitta vagabunda*), जंगली कौवा अथवा 'दि जंगल क्रो' (*Corvus macrorhynchos*) तथा काश्मीरी कौवा अथवा 'दि जैकदा' (*Corvus monedula*) हैं। धब्बेदार गुपिल एक छोटी पीले-भूरे रंग की गुपिल की प्रजाति है जो स्वभाव से लजीली होती है। इसकी पुकार मृदु शोकाकुल तीन अथवा चार स्वरों की होती है जिसकी व्याख्या 'pretty sweet' अथवा 'he'll beat you' की गई है। यह पुकार कई मिनट तक लगातार एक रस दोहराई जाती है। फुदकी अपने घोंसले के कारण प्रसिद्ध है जिसे वह पत्तियों को 'सिलकर बनाती है। इसकी पुकार उच्च प्रसन्न 'towit-towit-towit' होती है जिसके लिए प्रायः कहते हैं कि फुदकी 'pretty-pretty-pretty' पुकार रही है। कृशकट एक विचित्र पक्षी है। यह विभिन्न स्वरों में पुकारता है जिनमें से कुछ पुकारें उच्च तथा कर्कश होती हैं और कुछ मधुर तथा कर्णप्रिय होती हैं। इसकी एक मधुर पुकार 'Bob-o-link' अथवा 'कोकिला' है। जंगली कौवा को हम सब लोग इतनी अच्छी तरह जानते हैं कि उसका यहाँ परिचय देने की आवश्यकता नहीं है। यद्यपि इसकी साधारण पुकार 'कांव-कांव' ही है परन्तु कभी-कभी यह 'अल्लाह' अथवा 'आया' भी पुकारता है। काश्मीरी कौवा जैसा कि उसके नाम से स्पष्ट है, काश्मीर की घाटी में सामान्य है। इसकी पुकार अन्य कौवों की अपेक्षा अधिक मधुर होती है और इसकी व्याख्या की गई है 'Jack और cea' और इसीलिए इसको अंग्रेजी में 'जैकदा' कहते हैं। उपर्युक्त आर्डर के एक परिवार Paridae की एक प्रजाति काला वल्गुल अथवा 'दि क्रैस्टिड ब्लैक टिट' (*Lophophanes melanophus*) है। यह पक्षी पक्का कलाबाज है और एक भाड़ी से दूसरी भाड़ी अथवा एक डाल से दूसरी डाल पर भोजन की तलाश में फुदकता फिरता है और कदाचित् ही कभी शान्त बैठता हो।

यह उच्च स्वर में ऐसी पुकार लगाता है जैसे कह रहा हो 'want you, need you, want you, need you,' और यह पुकार अत्यन्त मार्मिक लगती है।

क्या आप लक्ष्मीबाहन से आशा करते हैं कि वह मनुष्य के मतलब की कोई बात कहेगा ? तो फिर ध्यानपूर्वक सुनिए, अमराई के घुघू की उच्च शोकयुक्त पुकार haw-how-how-ha' जो कभी-कभी दीर्घ तीन स्वरों 'hu-who-hu' (कौन) की भी बतलाई गई है। शोकाकुल चोगद एक छोटा सुन्दर उलूक है जो केवल रात्रि में ही सक्रिय रहता है। जैसे ही गोधूलि समाप्त हुई और इस चोगद ने अपनी धीमी शोकयुक्त पुकार 'whaat' प्रस्तात्मक स्वर में प्रारम्भ की और रात्रि भर थोड़े लम्बे समय के उपरान्त वह पुनः पुनः यही पुकार करता रहेगा अमराई का घुघू अथवा 'दि ब्राउन फिश आउल' (*Ketupa zeylonensis*) तथा शोकाकुल चोगद अथवा 'दि काल्ड स्कोप्स आउल' (*Otus bakkamaena*), आर्डर Striges के परिवार Strigidae की प्रजातियां हैं।

राजेन्द्र बहादुर सक्सेना, सहायक अरण्यपाल।

The Editor Has Noted

1. There has been and continues to be much letter-writing to the Editors of various newspapers in the country against the shooting of wild elephants in the Uttar Pradesh and Orissa.

We would like to clarify that we support the administration's policy in this case because the number of elephants has, indeed, increased to such an extent that culling has become necessary. The only way to avoid this culling is to leave more area for forests, which is manifestly impracticable in view of India's growing populations. Let us call a moratorium on the cultivation of hitherto forest lands. That is still possible.

As for the administration's information about elephants, we feel there is insufficient evidence as to the number of elephants in the U.P. The census said to have been carried out by them, in so far as we can make out, had no real scientific basis and is at best an approximation. We do not know whether 1200 is the correct number to-day.

Why cannot some forest officer be deputed to carry out a truly accurate census, as well as study the diet etc. of the Indian elephant. If we did not ourselves have our normal profession to keep up, we would be only too glad to do this work, but as it happens we do have a forest service whose job it is.

2. Man-eating tigers are reported again from Pilibhit and Pauri Garhwal. We are not surprised at Pilibhit, but Garhwal is a bit high for tigers. It seems likely the area in question is in the foothills of Garhwal, near Dugadda and Lansdowne. We note one has been shot, and a tiger wounded near Meerut, possibly near the Garhmukteswar bridge over the Ganga.

3. The Government are planning the formation of a Desert Development Board. Our felicitations, but let us give a place to desert wild life forthwith on this Board. Let us have a member who knows his *Antelope Cervicapra* and *Gazella benettii*. Both are in danger, as is the Bustard.

4. Reports multiply of white tigers seen in natural forest. First bred by the Maharaja of Rewa, they have now been seen in Hazaribagh and in the forests near Rewa. A good sign, and the sub-species may soon establish itself in the wild state.

5. There is report of a snowman from the Caucasus. We don't rightly know whether this is rightly under our purview!

Madame Kofman, a French-born lady surgeon is leading the search for this chap, called locally the 'almasty', said to be seven feet tall, egg-headed (sic), with a massive sloping brow (what, like Napoleon?).

To top it all, no less than a dozen members of the Russian Communist party have seen this creature in steep, nettle-grown valleys. This puts the seal of authenticity on this apparition unless the 'Russkies' are slipping. Possibly, the Chinese communists would be even more authentic if they reported such an occurrence, except that they are reported to have seen several odd things on that dark night on top of Mount Everest.

The 'almasty' is said to like milk and bread, but will take carrion, and has hands drooping down to his toes, with pigeon-toed gait and mutters indistinctly, and screams like terrified women when there is danger around.

This begins to appear very much like one of our acquaintances!

Honorary Secretary's Report at the Annual General Meeting, 1964

Members

It is with a feeling of pleasure and hope that I present a report on the working of the Wild Life Preservation Society for the year ending 31st March, 1964. Pleasure because of having achieved some of our objectives and hope because of improved financial position ensuring better work and service in future.

Journal Cheetal

Two numbers were published under the able editorship of Shri Hari Dang and the Cheetal continued to inspire wild life enthusiasts with thought provoking articles. True stories of Wild Life, description and discussion of Wild Life Research Projects and information about wild life. The number of subscribers to the Cheetal is rising and we are grateful to the Chief Conservators of Forests of U.P., Bihar & Assam for their help in this connection. We are waiting for a grant from the Government of India and as soon as we get it the Cheetal will be made more useful.

Revenue Account

The Auditors—Messrs. P.N. Bahri and Co., Chartered Accountants, whose report is before you mention that 'The working of the Society shows a deficit of Rs. 694.73 as compared with Rs. 5438.94 of the previous year'. This is due to the drastic curtailment of expenditure and greater efforts, particularly by Shri S.S. Negi to increase the income of the Society.

General

The Wild Life Week was celebrated jointly with the Wild Life Department, U.P. and coloured posters were sent to most of the educational institutions in Dehra Dun. Six members of the Society delivered more than a dozen lectures at the various Institutions, Clubs and Societies. Wild Life Film shows were held. The Corbett Essay/Project on wild life competition was held and prize awarded to a student in South India. New life has been infused into the Fisheries Sub-Committee by Sri R.D. Singh and fruitful results are expected in the near future. His Highness the Maharaja of Nabha, President of the Society gave generous donations to furnish the office, start a library and to wipe off the deficit. He has

also donated 1000 pieces of Balance of Nature game, ties and buttons. The sale proceeds will add to the funds of the Society. This has left the Society under a mounting debt of gratitude to His Highness. A branch of the Society has been organised in Bihar and the enthusiastic organisers deserve praise for it. The Society has been granted representation on U.P. Wild Life Board and efforts are afoot to secure representations on the Indian Wild Life Board.

The Society is grateful to all the office bearers and members for their help, time, influence and advice given ungrudgingly and particularly to the President for financial support to the Society.

R.N. Misra.

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July 16, 1964:

The President and Members,
Executive Committee,
Wild Life Preservation Society of India,
Dehra Dun.

Gentlemen,

We have audited the Accounts of the Society for the year ending 31st March, 1964 and as mentioned in our certificate at the foot of the Balance Sheet as at 31st March, 1964, we have the following report for your information:—

2. The Working of the Society shows a deficit of Rs. 694.73 nP. as compared with 5,438.94, of the previous year. The decrease in Deficit of about Rs. 4,740.00 is explained as under:—

Increase in Income :	Subscription (about)	540	
	Pads, Cards etc. ,,	1070	
	Sundries: Suspense and Misc:	70	1680
Add Decrease in Expenses	(about)	...	1650
„ „ „	Journal Loss „	...	1300
„ „ „	Fishing A/C „	...	160
			4790
Less: Registration Fee: W/O	...	50	Rs. 4,740

3. Subscriptions unrealized amounting to Rs. 249.00 have not been taken into account.

4. In the absence of proper statement of Account from Assam and Bihar Branches 10% of the Collections from Subscriptions have been charged to accounts and provided for as payable expenses.

5. *Finances:* Although there is a deficit in Working, the Finances otherwise show an improvement due to better collections on account of Donations, Patron Members, Life Members and Admission Fee. The Unpaid Expenses are much less than the previous year.

6. *Accounts:* In the absence of a proper Accountant we had difficulty in completing the Audit and Reconciling Accounts. Without the help of Mr. Misra, Hony. Secretary it would have been difficult to complete the Audit when there have been so many changes in Office Assistants. We think some experienced part time Accountant should be engaged. The present system of Books is complete if there is somebody to regularly Balance it.

We remain

Yours faithfully

For M/s. P.N. Bahri & Co.
Chartered Accountants.

(Sd.) P.N. Bahri, Partner.
Chartered Accountant.

WILD LIFE PRESERVATION

Balance Sheet as at

LIABILITIES		Rs.	P.	Rs.	P.	Rs.	P.
Unpaid Expenses:							
	Magazine and books	...		36	10		
	Rent	...	70 00				
	Taxes	...	15 43	85	43		
	Printing Charges of CHEETAL	...		770	00		
	Audit Fee	...		100	00		
	Sundry Expenses (Mr. Baletty ex-Clerk)	...		57	07		
	Due to Assam Regional Branch	...	124 42				
3,335	Due to Bihar Regional Branch	...	31 00	155	42	1,204	02
Advances Subscription:							
	Ordinary Members	...		50	75		
	Educational Members	...		50	00		
	Life Members	...		9	00		
	Professional Members	...		30	00		
206	Affiliated Members	...		60	00	199	75
—	Advances Subscription for CHEETAL:					187	00
377	Advance for Cartridges:					—	—
Corbett Prize Fund:							
1,071	As per last Balance Sheet	...				1,071	22
37	Suspense:						
	Pending Adjustment	...				—	—
250	Donation from H.H. Nabha for I.U.C.N. and R.R.					250	00
	As last Balance Sheet	...					
Society Fund:							
	As per last Balance Sheet	...		4,860	38		
	Add: Donations (Including Patrons)	...		1,420	00		
	Life Membership Fee:	...		1,854	00		
	Entrance Fee:	...		580	00		
		...		8,714	38		
4,861	Less: Deficit as per Income and Expenditure Account (Annexed)	...		694	73	8,019	65
10,137	TOTAL	...				10,931	64

15, Rajpur Road, Dehra Dun

Dated July 16, 1964

SOCIETY OF INDIA, DEHRA DUN

31st March, 1964

ASSETS		Rs.	P.	Rs.	P.
Office Furniture and Equipment (At Cost):					
	As per last Balance Sheet	...	356	00	
	Add: Additions	...	44	94	
			400	94	
356	Less: Depreciation for the year	...	40	94	360 00
Snakes and Ladders (At Cost)					
383	As per last Balance Sheet	...			383 00
Outstandings:					
	Due for CHEETAL supplied	...	103	25	
	Greeting Cards (Bills Recoverable)	...	1,004	20	
526	Subscriptions due from Members	...	1,517	71	2,625 16
176	Advance to Staff				11 10
Stock in Hand:					
	Journal CHEETAL	...	847	50	
	Greeting Cards and Pads	...	375	50	
1,636	Ties and Buttons	...	41	67	1,264 67
50	Registration Fee Excess Deposited:				
60	Security Deposit:				
	Electric	...	40	00	
	Water	...	20	00	60 00
Cash and Bank Balances:					
	Fixed Deposit with Central Bank of India Ltd., Dehra Dun (Includes Corbet Prize Fund)	...	4,452	43	
6,950	Current Account with Central Bank of India Ltd., Dehra Dun	...	1,786	38	6,238 81
10,137	TOTAL	...			10,931 64

As per our separate report of even date addressed to the Members of the Executive Committee

For M/s P.N. BAHRI & Co., Chartered Accountants,

P.N. BAHRI, Partner, Chartered Accountant.

WILD LIFE PRESERVATION

Income and Expenditure Account for

EXPENDITURE		Rs. P.	Rs. P.	Rs. P.
1,479	To Salaries	...	1,143 53	
1,100	„ Honorary Secretary Conveyance Allowance	...	...	
101	„ Advertisement and Publicity	...	...	
240	„ Postage and Telegrams	...	462 73	
135	„ Printing and Stationery	...	250 39	
948	„ Rent and Taxes	...	840 00	
87	„ Electricity, Water and Conservancy	...	68 15	
79	„ Entertainment (General Meeting Expenses)	...	90 65	
110	„ Conveyance Allowance to Staff	...	...	
117	„ Contribution to Assam Regional	...	34 80	
—	„ Contribution to Bihar Regional	...	31 00	
125	„ Magazine and Books	...	...	
59	„ Miscellaneous Expenses	...	3 88	
36	„ Bank Charges and Exchange	...	31 28	
100	„ Audit Fee	...	100 00	3,056 41
4,716				
	„ Journal Publication:			
	Opening Stock on 1-4-1963	...	745 50	
	Printing Charges	...	2,672 08	
			3,417 58	
	Less:			
	Sales and Subscriptions	...	893 00	
	Less: Received in Advance	...	187 00	
			706 00	
	Advertisement	...	15 00	
	Bills and Subscriptions Due	...	103 25	
	Add: Stock	...	847 50	
			1,671 76	
3,191	Less: Subscriptions Outstanding 1962-1963	...	135 00	1,536 75
				1,880 83
157	„ Fishing Account:			...
89	„ Depreciation: On Furniture	...		40 94
	„ Registration Fee Excess Deposited Irrecoverable (Written Off)	...		50 00
8,103	TOTAL	...		5,028 18

15, Rajpur Road, Dehra Dun
Dated July 16, 1964

SOCIETY OF INDIA, DEHRA DUN

the Year ending 31st March, 1964

INCOME		Rs.	P.	Rs.	P.	Rs.	P.
By Subscription Receipts:							
Ordinary Members	...	1,145	08				
Family Members	...	24	00				
Institutional and Affiliated Members	...	360	00				
Professional Members	...	110	00				
Educational Members	...	102	00				
Student Members	...	...					
		1,741	08				
Add: Advance received last year adjusted	...	206	00				
Outstanding on 31-3-1964	...	1,947	08				
Ordinary Members	...	653	71				
Educational Members	...	18	00				
Student Members	...	480	00				
Professional Members	...	66	00				
Institutional Members	...	300	00	3,464	79		
Less: Subscriptions received in Advance:							
Carried over:							
Ordinary Members	...	50	75				
Educational Members	...	50	00				
Student Members	...	...					
Institutional Members	...	60	00				
Professional Members	...	30	00				
		190	75				
Add: Outstanding on 1-4-1963	...	371	00	561	75		
2,360				2,903	04		
„ Pads, Covers and Greeting Cards:							
Sales: Pads and Covers	...	117	00				
Greeting Cards	...	377	90	494	90		
Add: Stock as on 31-3-1964	...	375	50				
Bills recoverable 31-3-1964	...	1,004	20	1,379	70		
				1,874	60		
49 Less: Opening Stock on 1-4-1963	...	751	50	1,123	10		
„ Fishing Permit:	...	32	00				
— Less: Outstanding on 1-4-1963	...	20	00	12	00		
„ Miscellaneous: Unclaimed Cheque 1962	...	22	00				
— Receipts	...	00	75	22	75		
„ Ties and Buttons:							
Sales:	...	103	12				
Add: Closing Stock on 31-3-1964	...	41	67				
		144	79				
— Less: Opening Stock on 1-4-1963	...	138	54	6	25		
„ Interests on Fixed Deposits:							
(Received on Cash)	...	58	11				
255 (Received on Renewal)	...	171	20	229	31		
„ Suspense: Balance Written off (Last Year)	...			37	00		
5,439 „ Deficit: Carried to Society Fund Account	...			694	73		
8,103	TOTAL	...		5,028	18		

As per our report on the Balance Sheet annexed

For M/s P.N. BAHRI & Co., Chartered Accountants,
P.N. BAHRI, Partner, Chartered Accountant.

Estimate of Income & Expenditure for the year 1964-65.

as approved by the Executive Committee.

INCOME		EXPENDITURE	
	Rs.		Rs.
Patrons	6,000	Office Salaries,	
Life Members	800	Establishment, etc.	2,200
Ordinary Members	1,500	Advertisement & Publicity	400
Institutional and Affiliated Members	500	Printing & Stationery	300
Professional Members	120	Postage & Telegram	500
Educational Members	150	Rent	840
Student Members	500	Electric, Water and Conservancy	200
Other Members	50	Entertainment	125
Pads, Buttons, Ties	250	Contribution to Assam Branch	100
Balance of Nature Game	1,300	Contribution to Bihar Branch	100
Donations	2,700	Miscellaneous	100
Interest on deposits	250	Bank Commission	40
		Audit Fee	100
		Cheetal	2,000
		Reserve Fund	5,000
		Furniture	1,600
		Books	515
TOTAL	14,120	TOTAL	14,120

"CHEETAL" A/C

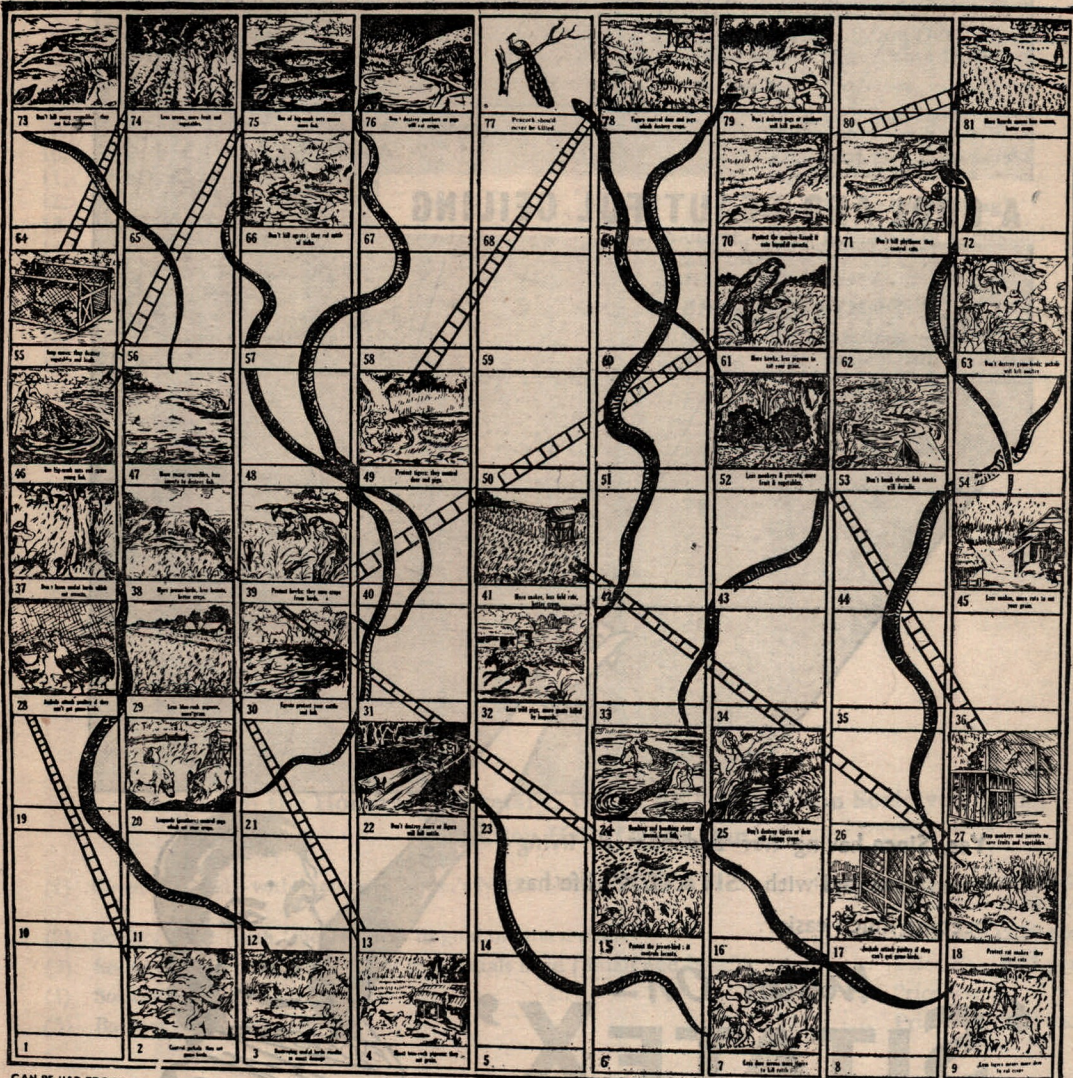
	Rs.
Printing	3,000

Less:

Advertisement	Rs. 250
Sales	„ 750

TOTAL 2,000

BALANCE OF NATURE



WILD LIFE PRESERVATION SOCIETY OF INDIA
7 Astley Hall,
Dehra Dun.

Wild Life Preservation Society of India, a non profit, non Government, independent conservation Organisation was started by a group of Wild Life enthusiasts in 1928. Its objects are—

- To promote interest in the preservation and conservation of all forms of animal life among the youth of the country.
- To assist in enforcing the game and arms rules and to bring to the notice of the authorities any infringements of the same.
- To advise and help Government and the District authorities in the formation, maintenance and protection of Sanctuaries and National Parks.
- To raise funds for the carrying out of the above aims and objects.
- To carry on any other activities which will serve the above objects, including publicity and propaganda and the issue of a journal.
- To assist members of the Society in obtaining shooting and fishing facilities and facilities for viewing and photographing wild life etc.
- To conduct research into the problem of wild life management in India, and in pursuance of this, to initiate, encourage, assist in, projects for the study of threatened species and related subjects and to provide reference and research facilities for such work.

The society publishes a Half Yearly Journal "CHETAL".

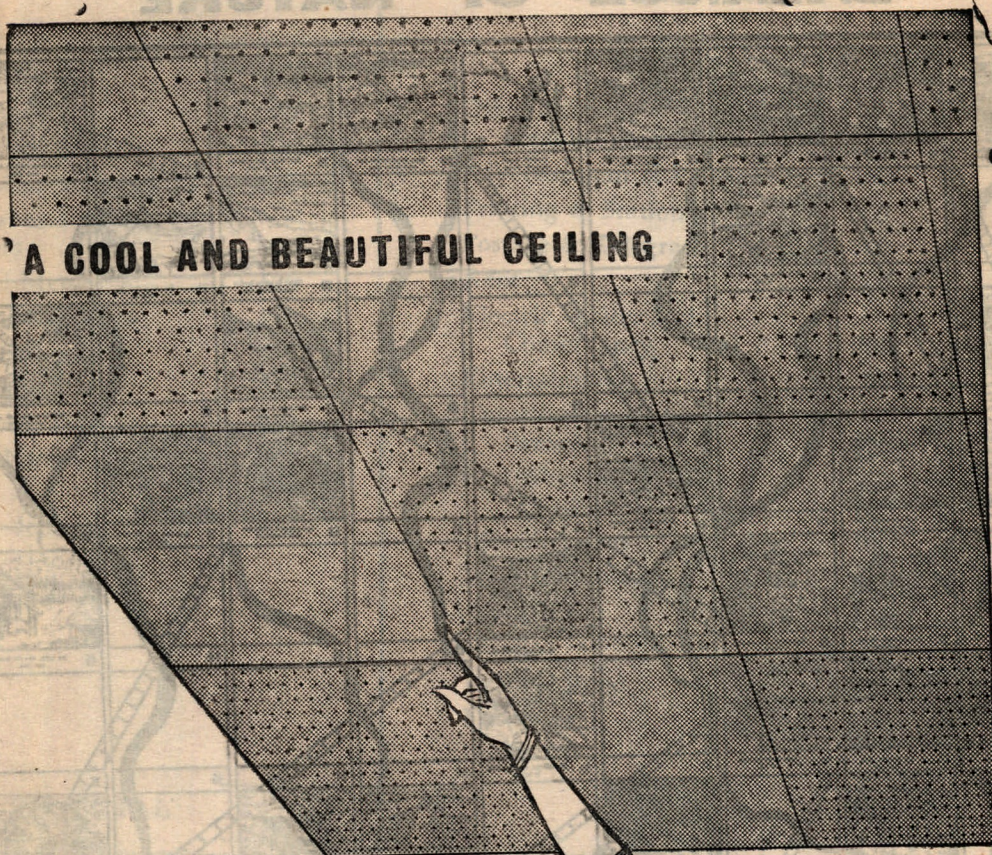
The game of the Balance of Nature is published by Wild Life Preservation Society of India to circulate in the growing generation a true knowledge of Wild Life and to create in old and young alike a love for wild life.

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WILD LIFE PRESERVATION SOCIETY OF INDIA
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Price—Members: Rs. 9/-
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D.F.O., Saharanpur Division, Dehra Dun.
District Magistrate, Dehra Dun.
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| (4) Society's writing pads & covers | ... Price Rs. |
| (5) Balance of Nature Game | ... Price Rs. 9.00 each. |

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THE CHEETAL

JOURNAL OF THE WILD LIFE PRESERVATION SOCIETY OF INDIA

Vol. 7

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